Rhododendrons and Azaleas

SPECIES & HYBRIDS

POSSIBLY HARDY IN THE TERRE HAUTE, IND. AREA.

SELECTIONS.

EDITED BY A.W.LINDHOLM

1973

VIGO COUNTY
PUBLIC LIBRARY
No. 7400601
Ref 635.933 L
"WORKS OF REFERENCE"

CONTENTS

Excerpts from--	Page(s)
"Rhododendrons and Azaleas" -Sunset- 1972	1-5
"Concise Encyclopedia of Favorite Flowering Shrubs" -Dietz-1963	6
"Standard Cyclopedia of Horticulture -Bailey- 1935	6
"Taylor's Encyclopedia of Gardening" -Taylor- 1961	6
"Rhododendrons for the Chicago Area" Morton Arboretum- 1973	7
"Plants and Gardens" -Brooklyn Botanic Garden- 1971	8
"Wyman's Gardening Encyclopedia" -Wyman- 1971	9,10
"Rhododendrons and Azaleas" -Bartrum- 1964	11-18
"Rhododendrons" -Krüssman- 1970	19-22
"Rhododendrons of the World" -Leach- 1961	23-29
"Rhododendrons for the Indianapolis Area" -Holeman- 1973?	30,31
"Arnold Arboretum Garden Book" -Wyman- 1954	32-43
"Shrubs and Vines for American Gardens" -Wyman- 1961	44-51
"Recommendations of Glenn Dale Azaleas" -Magruder- 1973	52
"Getting Started with Rhododendrons and Azaleas" -Clarke- 1960	53-58
"Winter-Hardy Azaleas and Rhododendrons" -Bowers- 1954	59-62

APPENDIX - Nursery Sources - 7 numbered sheets

REMARKS-

This compilation is not for the novice grower. Rhododendron culture in this locale is a tricky endeavor and one should learn first just how it's done. This he can do by acquiring small inexpensive plants and experimenting till he is successful in maintaining them. Only then is the grower ready to try for quality and variety.

The possibilities attending the growing of rhododendrons that are hardy in the Terre Haute area seem almost endless. The suitable varieties, both species and hybrid, give choices of one or more desirable shrub characteristics, viz.

- -broadleaf evergreen or deciduous.
- -size range; large, medium, or dwarf.
- -wide color range; all shades of purples, reds, pinks, and yellows.
- -many flower forms; single, double, hose-in-hose, etc.
- -different blooming times.

It would seem possible, that an ample rhododendron planting here could have bloom throughout a two-month or even longer period.

Arthur W. Lindholm
Terre Haute, Ind.
1973

7400601

1973

Rhododendron, Azalea Hybrids

In the following charts you will find information which will help you select a rhododendron or azalea suitable for your climate and for specific landscape situations. Rhododendrons and evergreen azaleas are first separated into color groups, then the sorts in each group are listed alphabetically by name; deciduous azaleas are listed alphabetically by name in one group.

"g" after rhododendron name signifies "group" (see page 12)

RHODODENDRONS (White)

NAME	HARDY TO:	SEASON OF BLOOM	HEIGHT	ARS RATING	CHARACTERISTICS
Beauty of Littleworth	−5	Early May	Tall	4/3	White flowers speckled with red-purple on upper petals; 4-5" across. Conical truss, dark green leaves. Vigorous, upright spreading.
Boule de Neige	−25	Early May	Low	3/4	Pure white flowers appear in snowball-like trusses. Light green 6-inch leaves cover the rounded plant. Susceptible to Lace Wing Fly if planted in full sun.
Catalgla	−25	Late May	Medium	4/2	White flowers in tall trusses. Dark green foliage, open plant. A selection of the white form of *R. catawbiense.*
Catawbiense Album	−25	Late May	Medium	3/3	Rounded trusses of blush to white flowers spotted greenish-yellow. Compact, spreading plant with medium to dark green leaves.
County of York	−15	May	Tall	3/3	Pale chartreuse buds open to creamy-white flowers with greenish throats; tall trusses. Deep green leaves are convex and long − up to 12 inches. Open plant habit.
Cunningham's White	−15	Late May	Semi-dwarf	2/3	Small white flowers with greenish blotch in small, upright trusses. Many flowers. Spreading, compact plant has shiny, rather dark foliage. Tough and adaptable. Also used as an understock.
Dora Amateis	−15	Late April	Semi-dwarf	4/4	White, green-spotted 2-inch flowers in clusters of 3-5. Rounded compact shrub with boat-shaped leaves to 3" long. Vigorous.
Great Lakes	−25	Mid-May	Semi-dwarf	3/4	Pink buds open to 2-inch white flowers in domed trusses of 15. Medium green leaves have tan indumentum. Very compact plant.
Madame Mason	−5	Mid-May	Medium	3/3	Pure white with yellow blaze on upper petals. Trusses are compact, tall and conical. Dark green foliage.
Sappho	−5	Mid-May	Tall	3/2	Medium-sized white flowers with conspicuous purple blotch on upper petals; compact, domed truss. Open growth habit.
Windbeam	−25	Late April	Semi-dwarf	4/3	White flowers change to soft pink as they age. Lavish bloomer. Small, aromatic foliage on spreading plant.

RHODODENDRONS (Yellow Shades)

NAME	HARDY TO:	SEASON OF BLOOM	HEIGHT	ARS RATING	CHARACTERISTICS
Crest	−5	Early May	Tall	5/3	Large trusses of 12 yellow flowers, each 4" wide. Glossy, oval leaves which are held for one year only.
Goldfort	−10	Mid-May	Tall	4/3	Light yellow flowers with pink and green tints; medium-sized, rounded trusses. Upright and open plant.
Moonstone g.	−5	Mid-April	Semi-dwarf	4/4	Bell-shaped creamy yellow flowers open pink, in lax trusses of 3-5. Leaves are oval, flat, and medium green, about 2½" long. Compact mounded plant prefers afternoon shade.
Souvenir of W. C. Slocock	−5	Early May	Low	3/3	Tight conical trusses of apricot flowers which change to light yellow. Medium green, 4-inch leaves; compact, upright but spreading plant. Slow growth.

62 NUMBERED SHEETS

AL 1

RHODODENDRONS (Pink)

NAME	HARDY TO:	SEASON OF BLOOM	HEIGHT	ARS RATING	CHARACTERISTICS
Alice	−5	Mid-May	Medium	3/4	Large deep pink to light rose flowers in large upright trusses. Vigorous, easy-to-grow plant.
Betty Wormald	−5	Mid-May	Medium	4/3	Pink, pale-centered flowers heavily spotted on upper petals, very large and flat. Huge dome-shaped truss.
Cadis	−15	Late May	Medium	4/4	Fragrant, large, light pink flowers are produced in large flat trusses. Dense foliage. Needs some sun for best bloom production.
Conewago g.	−25	Early April	Low	3/2	Small lavender-tinged pink flowers and small foliage on a vigorous, rather open plant.
Countess of Derby	−5	Late May	Medium	4/3	Deep pink flowers with reddish spotting on upper petals fade to pale pink. Large rounded truss. Open, spreading plant. Also sold as 'Eureka Maid'.
Cynthia	−10	Early May	Tall	3/3	Dark rose fading to lighter pink; 3-inch flowers in conical trusses. Medium to dark green foliage. Plant is compact in sun, more open in shade.
Everestianum	−15	Late May	Tall	2/3	Slightly bluish-pink with yellow spots in the throat, the frilled 2-inch flowers come in rounded trusses of 15. Dark green 5-inch leaves cover the vigorous, rounded plant. Rugged and adaptable.
Jock g.	−5	Late April	Low	2/4	Bell-shaped dark pink flowers are 3" across in trusses of 6-8. Dark green leaves cover the dense, spreading plant. Best growth in sun.
Kate Waterer	−10	Late May	Medium	2/3	Dark pink flowers with yellow centers are held in tight trusses. Fairly compact plant with good foliage.
Marinus Koster	−10	Mid-May	Tall	4/3	Flowers are 5" across, pink with brown spotting; dome-shaped truss of 10-12. Shiny dark green 7-inch leaves.
Mrs. Charles E. Pearson	−5	Mid-May	Tall	4/4	Large blush pink and orchid flowers have brown spots on upper petals; large dome-shaped trusses. Vigorous plant, with dark green foliage.
Mrs. E. C. Stirling	−5	Early May	Tall	4/4	Frilled blush pink flowers with long, decorative stamens; tall conical truss. Leaves are medium to light green on an upright-spreading plant.
Mrs. Furnival	−10	Late May	Medium	5/5	Clear pink flowers with light brown blotch in upper petals; tight dome-shaped trusses. Compact plant.
Naomi g.	−10	Early May	Tall	4/4	Outstanding group of hybrids, ten of which have been named. Most are rather irridescent pink with shadings of yellow, lilac, or red.
Pink Pearl	−5	Mid-May	Tall	3/3	Rose pink fading to blush in large, tall trusses. Open, rangy growth without some shaping. A very dependable grower and bloomer.
GABLE'S Pioneer	−20	March	Medium	2/3	Light pink flowers 1 inch across, freely produced. Small leaves are replaced by new each spring. Upright.
Praecox g.	−5	March	Medium	3/3	Small rosy-lilac flowers in trusses of 3-4. Compact and upright, with glossy leaves. Can be sheared as a hedge. Very free flowering.
Racil	−5	Early April	Semi-dwarf	3/2	Small appleblossom-pink funnel-shaped flowers come in clusters of 3 or 4. A low, mounded plant that is very versatile.
Roseum Elegans	−25	Late May	Tall.	2/4	Fairly small rosy-lavender flowers are held in domed trusses. Popular as a landscape shrub in cold climates, but is also a good performer in southeast and southwest gardens. Vigorous.
Scintillation	−10	Mid-May	Medium	4/4	Large pink flowers with bronze and yellow in the throat are held in a large, domed truss. Large, glossy, dark leaves. Plant needs some shade.

RHODODENDRONS (Red)

NAME	HARDY TO:	SEASON OF BLOOM	HEIGHT	ARS RATING	CHARACTERISTICS
America	−25	Late May	Medium	2/2	Small dark red flowers in ball-shaped truss. Plant is spreading, better shape in full sun. Dull green foliage.
Britannia	−5	Late May	Medium	4/4	Crimson to scarlet flowers in rounded truss. Light dull green leaves; spreading, compact plant.
Caractacus	−25	June	Medium	1/3	Purplish-red flowers, excellent compact plant. Foliage may yellow in the sun.
Doncaster	−5	Late May	Semi-dwarf	2/3	Bright crimson-scarlet flowers, 2½ inches across, appear in rounded trusses. Dark green 6-inch leaves on a spreading plant. Tolerates some heat.
Dr. V. H. Rutgers	−15	Late May	Medium	2/3	Fringed aniline red flowers. Dark green leaves clothe the broad, dense plant.
Holden	−15	Mid-May	Medium	3/4	Rose red flowers with darker red eye come in rounded trusses. Large dark green leaves, compact plant.
Ignatius Sargent	−25	Late May	Medium	2/2	Slightly fragrant, large rose-red flowers. Large leaves, open plant.
Leo g.	−5	Mid-May	Medium	5/3	Waxy cranberry red flowers in full dome-shaped trusses of 20-24. Dark green leaves to 7" cover the dome-shaped plant.
Mars	−10	Late May	Low to Medium	4/3	Deep red with contrasting light stamens; compact, high truss. Plant is slow growing and compact with dark green leaves.
Nova Zembla	−20	Early May	Medium	3/3	Dark red with deeper spots on upper petals. Polished dark leaves, round flower trusses. Good plant habit, adaptable over much of United States.
Trilby	−5	Late May	Medium	3/3	Dark red with blackish center in ball-shaped truss. Leaves are gray to olive green, large, on compact plant.

RHODODENDRONS (Blue and Purple)

NAME	HARDY TO:	SEASON OF BLOOM	HEIGHT	ARS RATING	CHARACTERISTICS
A. Bedford	−5	Late May	Tall	4/3	Warm blue with dark blotch on upper petal. Flowers 3¼" across in dome-shaped truss. Tall, vigorous plant.
Anah Kruschke	−10	June	Medium	2/3	Lavender-blue flowers in large, tight conical trusses. Compact plant with dark green foliage. Does well in sun.
Blue Ensign	−10	Late May	Medium	4/4	Lavender-blue with black spot, 6-9 flowers in a rounded truss. Glossy dark green leaves; upright, spreading plant which tolerates sun.
Blue Jay	−5	Early June	Medium	4/3	Lavender-blue flowers with brown blotch; compact, conical truss. Compact plant with large, bright green leaves.
Blue Peter	−10	Early May	Medium	4/3	Frilled lavender-blue flowers with purple blotch; conical truss. Spreads wider than high, takes sun.
Caroline	−15	Mid-May	Tall	3/3	Fragrant orchid-lavender flowers are especially long-lasting. Large, long, waxy leaves have wavy margins.
Fastuosum Plenum	−10	Late May	Tall	3/3	Semi-double 2-inch flowers are lavender-blue in full trusses. Leaves are dull dark green above, light green below. Plant takes full sun but flowers need part shade. Vigorous.
Lee's Dark Purple	−5	Late May	Medium		Large trusses of dark purple flowers are held against dark wavy foliage. Good in Southwest.
Marchioness of Lansdowne	−15	June	Medium	3/3	Light rose-violet flowers with blackish blotches come in tight dome-shaped trusses. Somewhat open, spreading plant.
Parsons Gloriosum	−25	Late May	Medium	2/2	Lavender flowers with pink shadings; truss is compact and conical. Dark leaves, compact plant.
Purple Splendour	−10	Late May	Medium	4/3	Considered the finest dark purple, ruffled with a black blotch on upper petals. Compact.
Ramapo	−25	Mid-April	Dwarf	3/4	Bright, light violet small flowers are in pleasing contrast to the small grayish-green foliage. Plant is neat, spreading but compact.
Russautinii g.	−5	Mid-April	Medium	4/3	Blue to purplish 1-inch flowers are freely produced on an upright shrub. Leaves are medium green, 1 inch long.

EVERGREEN AZALEAS (White)

NAME	TYPE	SEASON OF BLOOM	EXPOSURE	CHARACTERISTICS
Everest	GL	May	Half sun	White flowers with chartreuse blotch.
Glacier	GL	March-April	Half sun	Large shining white, single flowers; glossy leaves.
Helen Close	GL	April-May	Half sun	Large white flowers have pale yellow blotch. Small, dark leaves on a compact, twiggy plant.
Rose Greeley	G	February-May	Half sun	Fragrant hose-in-hose flowers are white wth chartreuse blotch
Snow	K	March-April	Half sun	White hose-in-hose flowers; dead blooms hang on. Upright growth.

EVERGREEN AZALEAS (Pink)

NAME	TYPE	SEASON OF BLOOM	EXPOSURE	CHARACTERISTICS
Aphrodite	GI	March-April	Full sun	Pale rose pink. Spreading plant with dark leaves.
Ballerina	M	March-April	Half sun	Baby pink single flowers; compact plant.
Caroline Gable	G	March-April	Half sun	Shocking pink hose-in-hose flowers.
Louise Gable	G	April-May	Half to full sun	Semi-double pink flowers with darker blotch. Low plant.
Rosebud	G	March-April	Half sun	Small, double rose pink flowers. Compact plant; poor in climate extremes.

EVERGREEN AZALEAS (Red)

NAME	TYPE	SEASON OF BLOOM	EXPOSURE	CHARACTERISTICS
Buccaneer	GL	April-May	Half to full sun	Bright orange-red flowers; upright plant.
Glamour	GL	April-May	Half sun	Large, brilliant rose red flowers. Narrow, dark green leaves.
Sherwood Red	K	February-April	Half sun	Brilliant orange-red single flowers. Plant is deciduous in very cold weather.

EVERGREEN AZALEAS (Lavender and Violet)

NAME	TYPE	SEASON OF BLOOM	EXPOSURE	CHARACTERISTICS
Purple Splendor	G	March-April	Half sun	Frilled red-violet flowers with darker blotch, single hose-in-hose. Spreading plant.

EVERGREEN AZALEAS (Variegated)

NAME	TYPE	SEASON OF BLOOM	EXPOSURE	CHARACTERISTICS
Geisha	GL	February-March	Half sun	Flowers are white, striped red.

OK. TO TRY ALL

DECIDUOUS AZALEAS

NAME	TYPE	SEASON OF BLOOM	CHARACTERISTICS
Adrian Koster	M	Late May	Deep pure yellow; large, 4-inch flowers.
Balzac	Ex	Late May	Fragrant star-shaped orange-red blooms; 12-14 to a truss.
Beaulieu	Ex	Late May	Deep pink buds open to soft pink flowers with orange on upper petal.
Berryrose	Ex	Early June	Fragrant pale pink flowers with orange centers. New leaves are hairy and bronze-tinted.

MORE-

DECIDUOUS AZALEAS (CONT'D.)

Brazil	**Ex**	**Early June**	Flowers of bright tangerine red with frilled edges. Smaller blooms than some, but many of them.
Cecile	**Ex**	**May-early June**	Deep pink buds opening salmon pink with a yellow flare. Up to 12 flowers in a truss. Good fall foliage.
Christopher Wren	**M**	**Late May**	Large chrome yellow flowers with tangerine blotch.
Coccinea Speciosa	**Gh**	**Early June**	Flowers are orange with a yellowish-orange blotch.
Delicatissima	**Oc**	**Late May**	Flowers are creamy white flushed rose, with yellow blotch on upper petal.
Exquisita	**Oc**	**Late May**	Fragrant, white flushed pink flowers have orange throats.
Dr. Jacobi	**M**	**Early June**	Deep red, 4½-inch flowers.
Fireball	**Kn**	**May-early June**	Unusually deep red, small flowers and bronze-green foliage.
Flamingo	**Kn**	**Late April-May**	Frilled flamingo pink flowers on a strong plant.
George Reynolds	**Ex**	**Late May**	Large flowers of butter yellow with deep gold blotches, green throat.
Gibraltar	**Ex**	**Late May**	Big flowers with ruffled edges; deep orange flushed with red. Compact shrub.
Ginger	**Ex**	**Early June**	Round tight trusses of bright tangerine flowers.
Golden Dream	**Ex**	**Early June**	Golden yellow flowers with orange blotches. Rounded compact clusters of 9-11 flowers.
Golden Sunset	**Ex**	**Late May**	Unusually large flowers of buff-yellow with orange flare.
Goldfinch	**Kn**	**Late May**	Apricot yellow flowers shading to pink. Tall grower.
Graciosa	**Oc**	**Late May**	Orange-yellow flowers have a red suffusion and a tangerine orange blotch.
Hotspur Red	**Ex**	**Late May**	Very large trusses of orange-red flowers touched yellow on upper petals.
Irene Koster	**Oc**	**Late May**	Fragrant white flowers flushed deep pink.
Knap Hill Red	**Kn**	**Early June**	Small flowers of a brilliant deep red. Bronze leaves on a vigorous plant.
Koster's Brilliant Red	**M**	**Early June**	Blazing orange-red 2½-inch flowers.
Lemonora	**M**	**Late May**	Flowers are apricot yellow, shaded pink.
Magnifica	**Oc**	**Late May**	Rose red with orange-yellow blotch.
Marina	**Ex**	**Late May**	Very large pale yellow flowers with pink shadings.
Marion Merriman	**Kn**	**Late May**	Rich yellow flowers with deeper yellow flare.
Nancy Waterer	**Gh**	**Late May**	Large golden yellow flowers.
Nicolaas Beets	**M**	**Late May**	Apricot to orange-yellow, shaded buff yellow.
Oxydol	**Ex**	**Late May**	Very large white flowers with yellow blotch in throat. Free flowering plant with bronzy leaves.
Princess Royal	**Ex**	**May**	Huge, fragrant ivory blooms faintly flushed pink open from pink buds.
Renne	**Ex**	**Late May**	Rich red flowers suffused with yellow. One of the earliest reds to bloom.
Rosella	**Kn**	**Early June**	Well-formed large pale pink flowers; fragrant. Strong grower.
Royal Lodge	**Ex**	**June**	Very deep red flowers with long, decorative stamens. Very late.
Spek's Orange	**M**	**June**	Fragrant poppy red flowers have a greenish blotch.
Strawberry Ice	**Ex**	**May**	Frilled trusses of coral pink flowers with yellow flare on upper petals; 11-13 blooms to a truss.
Sun Chariot	**Ex**	**Early June**	Soft apricot yellow flowers on a compact, spreading plant.
Sylphides	**Kn**	**Late May**	Very light pink flowers with yellow shadings in the center.
Toucan	**Kn**	**May-early June**	Large, fragrant creamy-white flowers with big yellow flare.
Whitethroat	**Kn**	**Late May**	Fragrant pure white double flowers. Compact plant has light green foliage. Flowers are smaller than most, but there are many of them.

"RHODODENDRONS AND AZALEAS"
A SUNSET BOOK - 1972

AVL

SPECIES AND VARIETIES There are hundreds of Rhododendron species, hybrids and named selections, only a few of which can be listed here. Gardeners in the moist, cool regions of the Pacific Northwest can grow most Rhododendrons with ease. Elsewhere, as in the Northeast, the upper South, parts of the Great Lakes region, the selection of Rhododendrons that will thrive narrows but there are still many, many good ones to choose. (Gardeners can join the American Rhododendron Society, 3514 N. Russet St., Portland 17, Oregon, for $3.00 a year. The Society has chapters in all the Rhododendron and Azalea-growing areas of the United States.) For descriptions and data concerning Rhododendron plants, consult also the catalogues of specialists listed at the end of this book.

Rhododendron carolinianum. Carolina Rhododendron. Beloved native of North and South Carolina and Tennessee, hardy to Zone 5 where temperatures don't fall below 10 degrees below zero. Neat, appealing habit with leaves only about 3 inches long or less, flowers—white, pink or rose—appearing in mid-May. A beautiful species, useful around homes, even in foundation plantings. Among modern hybrids with Carolina blood are P.J.M. Hybrids, introduced by Weston Nurseries, Hopkinton, Massachusetts, WINDBEAM, RAMAPO, and CONEWAGO. All are as hardy as the parent, and well suited to all landscaping purposes.

R. catawbiense. Catawba Rhododendron. Native from Virginia to Georgia, hardy to Zone 5. Lavender flowers in late May to early June. Height about 6 feet; its beautiful leaves, 5 inches long. ALBUM is white. An important parent of many hybrids including ROSEUM ELEGANS, KETTLEDRUM, LADY ARMSTRONG, EVERESTIANUM.

R. maximum. Rosebay Rhododendron. Native to eastern North America. Very hardy and large, eventually reaching 12 feet or more. (Zone 4.) Useful as hedge and screen. Hybrids include CUNNINGHAM'S WHITE, ALBUM ELEGANS, white, and many others.

R. racemosum. Mayflower Rhododendron. This species and the preceding giant from western China are good examples of the extremes that exist in this genus. *R. racemosum* is a small-leaved, small-flowered plant which grows slowly and may not exceed 2–3 feet. Its charming pink flowers appear early in May. It is a parent of WINDBEAM and CONEMAUGH, and a gem for the rock garden or for massing in front of taller growing shrubs.

R. Smirnowi. Smirnow Rhododendron. Species from the Caucasus, although not widely available from nurseries, is hardy to Zone 5, and should be better known to American gardeners. Its habit is excellent, dense and spreading, and the many flowers, in white to red, are carried in abundant clusters, usually appearing in late May. It should produce many fine hybrids.

635.976 THE CONCISE ENCYCLOPEDIA
D OF FAVORITE FLOWERING SHRUBS
-DIETZ
©1963

Hardy varieties.—The following varieties have proved hardy in the vicinity of Boston and may be recommended for planting in similar climates and for experimental trial farther north. They are mostly hybrids of *R. catawbiense* with *R. maximum*, *R. ponticum*, *R. caucasicum* and with some infusion of *R. arboreum* and perhaps a few other species. As in most of them the parentage of *R. catawbiense* is the most predominant, they are all usually called "catawbiense hybrids." Choice kinds are (those marked with an asterisk have proved the hardiest): *Album elegans*, blush, changing to white; *Album grandiflorum*, blush, changing to white, flowers larger, less spotted; *Alexander Dancer*, bright rose, paler in center; *Atrosanguineum*, rich blood-red; *August Van Geert*, bright carmine, spotted dark purple; *Bacchus*, crimson, large flowers; *Bicolor*, purplish pink, spotted; *Blandianum*, rosy crimson (H.F. 1859:153); **Bluebell*, blush, with light purplish margin; **Boule de Neige*, white, early; **Caractacus*, deep crimson; *Charles Bagley*, cherry-red; **Charles Dickens*, dark red, spotted brown, one of the most striking red ones; *Caerulescens*, pale lilac; **Coriaceum*, white, spotted yellow, dwarf and free-blooming; *Crown Prince*, carmine, spotted greenish yellow; **Delicatissimum*, blush, edged pink, changing to almost white, late (Gn. 63, p. 415); *Edward S. Rand*, rich scarlet; **Everestianum*, rosy lilac with crisped edges, excellent habit and very free-flowering (G. 26:103); **F. L. Ames*, white center, edged pink; **F. L. Olmsted*, pink; **Giganteum*, bright rose, large clusters; **Glennyanum*, white, suffused with pink (G.M. 44:355; 48:565); **Gomer Waterer*, blush-pink; *Grandiflorum*, clear rose; *Guido*, deep crimson; *Hannibal*, rosy carmine; **Henrietta Sargent*, pink; *Henry W. Sargent*, crimson, large clusters; *H. H. Hunnewell*, rich crimson; *John Waterer*, dark crimson; *J. D. Godman*, carmine, distinctly spotted; **Kettledrum*, rich crimson; **King of Purples*, purple, spotted dark brown; *Lady Armstrong*, rose-red, paler in center, distinctly spotted; **Lady Clermont*, rosy scarlet; **Lady Frances Crossley*, salmon-pink; *Lady Gray Egerton*, delicate lilac, spotted greenish brown; **Lee's Purple*, purple; *Madam Carvalho*, blush, changing to pure white; **Melton*, rich purple; **Mrs. C. S. Sargent*, similar to Everestianum, but pink; *Mrs. Milner*, rich crimson; **Norma*, pink; **Old Port*, plum-color; *Princess Mary of Cambridge*, white with purple margin; **Purpureum crispum*, lilac-purple, spotted greenish; **Purpureum grandiflorum*, purple, large clusters; *R. S. Field*, scarlet; *Ralph Sanders*, rich purplish crimson; *Rosa mundi*, white slightly flushed with yellow spots, dwarf (Gn. 63, p. 369); *Roseum elegans*, rosy lilac, dwarf; *Scipio*, rose with deep spot; **Sefton*, deep maroon, large clusters; *Wellsianum*, blush, changing to white.

REF. VOL III
630.03 STANDARD CYCLOPEDIA
B15 OF HORTICULTURE
P.2932 -L.H. BAILEY ©1935

The named forms of rhododendrons are legion, practically all of them of hybrid origin. Not all of them are worth the expense and time for long trials. In the list below are named forms, which, over a period of many years, have been a magnificent success. They were selected from over two hundred varieties, tested for two decades at the estate of the late Lowell M. Palmer, Esq., at Stamford, Conn., not far from Long Island Sound. All proved perfectly hardy there.

Album elegans
Album grandiflorum
Atrosanguineum
Bacchus
Bluebell
Boule de Neige
Caractacus
Charles Dickens
Delicatissimum
Edward S. Rand
Everestianum
F. D. Godman
Giganteum
Guido
Hamlet
Hannibal
Henrietta Sargent
H. H. Hunnewell
H. W. Sargent
James Bateman
James Macintosh
James Nasmyth
Kettledrum
King of the Purples
Lady Armstrong
Madame Carvalho
Maximum Wellsianum
Maxwell T. Masters
Mirandum
Mrs. Charles Sargent
Mrs. Harry Ingersoll
Mrs. John Clutton
Mrs. J. P. Lade
Mrs. Milner
Mrs. R. G. Shaw
Mrs. R. S. Holford
Mrs. Shuttleworth
Mrs. S. Simpson
Old Port
Picturatum
Purity
Purpureum elegans
Purpureum grandiflorum
Ralph Sanders
Roseum elegans
Scipio
Sefton
Sherwoodianum
Silvio
Sir Thomas Seabright

The list includes 50 varieties which may be considered among the most satisfactory of all rhododendrons.

REF. "TAYLOR'S ENCYCLO-
635.03 PEDIA OR GARDENING"
T ©1961 P. 1017

AN 6

Certain kinds of *Rhododendron* have proved their hardiness and tenacity over the years. While newer kinds are available, they have not yet been sufficiently tested in this region, and their culture should be attempted only by those who have successfully grown the more reliable types. The following kinds are recommended, based on their hardiness at the Morton Arboretum for ten or more years.

Broadleaf Evergreens

Species or Cultivated Variety	*Common Name*	*Flower Color*
R. carolinianum	Carolina Rhododendron	white to light rose-purple
R. catawbiense	Catawba Rhododendron	lilac or light purple
R. maximum	Great Laurel or Rosebay Rhododendron	pale pink to white
R. micranthum	Manchurian Rhododendron	white
'Dr. H. C. Dresselhuys'		bluish-red
'Everestianum'		rose pink
'Ignatius Sargent'		pale rose
'Mrs. Charles Sargent'		deep rose red
'Roseum Elegans'		lavender pink

Semi-evergreen or Deciduous

Species	*Common Name*	*Flower Color*
R. arborescens	Sweet or Smooth Azalea	white
R. bakeri (syn. *R. cumberlandense*)	Cumberland Azalea	red to orange
R. calendulaceum	Flame Azalea	orange
R. kaempferi (syn. *R. obtusum* v. *kaempferi*)	Torch Azalea	bright red
R. mucronulatum	Korean Azalea	purplish-lilac
R. nudiflorum	Pinxterbloom	light pink
R. schlippenbachii	Royal Azalea	rose pink
R. vaseyi	Pinkshell Azalea	pink
R. viscosum	Swamp Azalea	white
R. yedoense v. *poukhanense* (syn. *R. poukhanense*)	Korean Yodogawa Azalea	pale lilac
R. molle—*R. japonicum* hybrid complex	(A mixture of two Asiatic species, often sold as *R. molle*)	yellow to brick red

Cultivated Variety	*Flower Color*
'Bouquet de Flore'	orange-red
'Chevalier A. de Reall'	orange-yellow
'Early Dawn'	violet-red
'Elizabeth Gable'	light red to rose
'Emil Liebig'	orange-yellow
'Herbert'	violet-red
'La Roche'	dark purple-red
'Narcissiflora'	yellow
'Royalty'	violet-red
'Susan'	pink

Recent Introductions Exhibiting Hardiness

Cultivated Variety	*Flower Color*
'Fillmore'	salmon
'Pioneer'	dark rose
'P J M'	violet-pink
'Windbeam'	pink
Exbury-Knaphill hybrids	whites, pinks, reds, yellows and oranges

"RHODODENDRONS FOR THE CHICAGO AREA" LEAFLET
MORTON ARBORETUM - LISLE, ILLINOIS 1973

ANL 7

What are some of the best and hardiest rhododendron hybrids? Red—Atrosanguineum, H. W. Sargent; pink—Abraham Lincoln, Roseum Elegans; purple—Purpureum Elegans, Purpureum Grandiflorum; white—Album Elegans, Album Grandiflorum.

plant, if situated on the border-line of its tolerance, is easily affected by small factors. Thus, a rhododendron on the border-line of its hardiness will either thrive or fail, depending upon a few degrees of temperature, its immediate site, its state of growth, or any one of a dozen factors which may be variable. In the North, one has to deal with many of these border-line species. any — BOWERS

THE GREAT LAKES REGION—Clarence E. Lewis, East Lansing, Michigan

10 Rhododendron Species

R. carolinianum—Bell-shaped pink, lavender-pink, or rose flowers and small, glossy green leaves on a broad but upright plant. Ultimately 6-8 feet in height.

This species has been known to grow where winter temperatures may go 35 degrees below zero, but I suspect there was probably a deep snow cover.

R. catawbiense—Magenta to purple flowers in great profusion. A very hardy species suitable for severe winter climates. Hardy to —30 degrees F.

R. laetevirens—Not a species, but it reacts so much like one I have taken the liberty of placing it in this category. Small rose flowers in late spring and narrow leaves. Valuable for its dense, billowy growth and low stature (3-4 feet). Excellent for massing.

R. maximum—The Rosebay Rhododendron. Lavender to purple-pink flowers in early summer and long, dark green drooping leaves. The giant of American species; beautiful tree-like structure.

R. micranthum—Very tiny white flowers in clusters in June. Small leaves, not over 1¾ inches long, and a rather twiggy, upright habit. A worthy, rugged species hardy to about —25 degrees F.

R. minus—See previous entry.

R. mucronulatum—Abundant rosy-pink flowers in early spring and deciduous foliage. Loose growth habit can be controlled by pruning and heavy shearing.

The selection 'Cornell Pink' shows deeper red tints in its foliage in the fall as well as flowers closer to true pink.

R. racemosum—(See previous entry also.) In protected northern areas, this species has withstood very low temperatures (—15 degrees F.) where snow has been a good insulator. In East Lansing it has survived very well; our plant is only 18 inches tall after 8 years.

R. smirnowii—Pink to rose-colored flowers and dark green leaves with a feltlike coating on their undersides. Rounded, dense habit and height about 6 feet in gardens.

R. yakusimanum—See previous entry.

10 Rhododendron Hybrids

'Boule de Neige'—White flowers and handsome foliage. A slow-growing compact plant usually as high as it is wide. Blooms at a young age. A valuable plant for many landscaping uses, but it should be avoided in most foundation plantings, as eventually the plants outgrow the space.

'Mrs. Charles S. Sargent'—Rich carmine-rose flowers spotted yellow. A worthy selection for cold areas.

'Nova Zembla'—Red flowers. Similar to 'America,' but with a better growth habit.

Not only cold tolerant, but also heat resistant.

'Parsons' Gloriosum'—(See previous entry also.) Of iron-clad hardiness.

'Pinnacle'—Pure pink flowers. It has an 8-year record of hardiness in temperatures of —15 to —20 degrees F. A Shammarello introduction.

'P. J. M.'—Profuse lavender-pink flowers in early spring. Leaves turn to bronze and purple shades in the fall, remaining so all winter. As new leaves become mature, the old leaves turn red in the summer.

'Ramapo'—Small violet-blue flowers on a low, spreading plant with tiny, blue-green leaves. Very hardy and tolerant of sun or shade.

'Roseum Elegans'—Lavender pink flowers. Reliable for its ability to flower well and suffer temperature extremes without injury.

'The General'—Rich crimson-red flowers with dark blotches in their throats. Dark green leaves. A rugged hybrid from Shammarello.

'Windbeam'—Profuse white flowers become suffused with pink. Slightly aromatic foliage. Semi-dwarf habit. A Nearing hybrid.

10 Azalea Selections

R. arborescens—Sweet Azalea. Fragrant white flowers in mid-June and glossy green leaves which become red in the fall. The swamp azalea (*R. viscosum*) has white flowers of similar fragrance in July.

R. calendulaceum—Flame Azalea. Flowers range from yellow to orange and scarlet. Remains at about 5-7 feet under cultivation. A good native azalea for northern gardens.

Gable Hybrids—Four which have been reliable in Michigan are 'James Gable,' red hose-in-hose flowers; 'Louise Gable,' semi-double pink flowers; 'Herbert,' a spreading, shiny-leaved selection with purple flowers; 'Rosebud.'

Ghent Hybrids—Three very colorful ones: 'Coccinea Speciosa,' orange flowers; 'Gloria Mundi,' orange-yellow-red coloration; 'Narcissiflora,' double yellow flowers, sweetly fragrant. These and others in this group have responded to temperature extremes—even to —20 degrees F.

Mollis Hybrids—Flowers similar to those of the Exbury group, but usually smaller and less hardy. Deciduous foliage.

R. nudiflorum—Pinxterbloom. Light pink, long tubular flowers in late May. Hardy in extremely low (—25 degrees F.) temperatures. Grows about 6 feet under cultivation.

R. yedoense poukhanense—Korean Azalea. Violet-purple flowers liberally produced in early to mid-May; light, glossy green leaves. Especially hardy in Michigan.

Shammarello Hybrids—Several azalea hybrids. 'Hino-red' with a dense form and brilliant orange-red flowers; 'Helen Curtis,' white flowers. Hardy in the northern states.

R. schlippenbachii—(See previous entry also.) Low temperatures have provided no problems for this species.

R. vaseyi—Pink-shell Azalea. Soft pink, semi-open flowers in mid-May. Grows in a variety of soils as long as they are acid and well drained. 'White Find' is a pure white form.

PLANTS + GARDENS SUMMER 1971 P. 23-24

AN 8

Varieties

albrechtii 4½′ Zone 5 **Albrecht Azalea**
Not yet commonly grown, this is native to Japan, with uniform, unique, red to rose flowers, 2 in. in dia., blooming in mid-May. Autumn color is yellow, with deciduous leaves 3–5 in. long. This should be grown much more than it is, for the unique soft color is uniform and good.

arborescens 9′ Zone 4 **Sweet Azalea**
An unusually fragrant, deciduous azalea with white flowers in mid-June, this is native from Pa. to Ga., chiefly in the mountains. The deciduous leaves are 1 in. long and bright green, turning a dark, glossy red in the fall. 'Rubescens' has flowers tinged a purplish pink and is rarely found, but is well worth cultivating.

calendulaceum 9′ rarely 15′ Zone 5 **Flame Azalea**
The most showy of the native American azaleas, this has yellow, orange and reddish-orange flowers in early June, after the leaves are fully developed. It has the unique property of retaining its colorful flowers in good condition in the full sun for nearly 2 full weeks. Native from Pa. to Ga. and greatly appreciated by visitors to the Great Smoky Mountains when the flowers bloom in mid-June, this is an excellent species for landscape work. The deciduous leaves are 1½–3½ in. long. Plants with yellow flowers have the varietal name **croceum**; those with orange to scarlet flowers, **aurantiacum**. Many excellent clones have this species as one of the parents.

campanulatum 15′ Zone 5 **Bellflower Rhododendron**
A rhododendron with white, pink or purplish-blue flowers, about 2 in. across, bell-shaped, in a compact truss, blooming in April, and with evergreen leaves 3–5½ in. long. Native to the Himalayas. The foliage of this is excellent, making a fine ornamental specimen, but the flowers are not especially outstanding.

carolinianum 6′ Zone 5 **Carolina Rhododendron**
An evergreen, this is excellent for its pale, rosy-purple flowers in mid-May. The leaves, about 3 in. long, are brownish on the under side. Native to N.Car. Compact in habit, generally rounded in outline. One of the first rhododendrons to "roll" its leaves when the temperature approaches 20° F., this is a natural method of protecting its leaves, but detracts somewhat from its appearance. The variety 'Album' has white flowers. An excellent and serviceable rhododendron, one of the very best and most popular.

catawbiense 6′ rarely to 18′ Zone 4 **Catawba Rhododendron**
Native from Va. to Ga., this evergreen with leaves 2½–5 in. long is native throughout the Great Smoky Mountains. The flowers are a poor color, lilac-purple, spotted olive-green on the inside of the corolla, but the variety **album** has white flowers, 2½ in. wide, with yellow markings. 'Compactum' is a dense, rounded, compact form. Many hybrids are available, having the excellent foliage of this species but better flowers. Some of the better clones are:

FLOWER COLOR
- 'Albert'—white to pastel lilac
- 'Album Grandiflorum'—white
- 'Amphion'—fuchsia-purple
- 'Arno'—double flowers, purplish
- 'Atrosanguineum'—spiraea red
- 'Charles Dickens'—red
- 'Everestianum'—rosy lilac
- 'Henrietta Sargent'—Persian rose
- 'Kettledrum'—magenta
- 'Lady Armstrong'—purplish pink
- 'Mrs. C. S. Sargent'—Persian rose
- 'Present Lincoln'—amaranth rose
- 'Purpureum Elegans'—violet
- 'Purpureum Grandiflorum'—purple
- 'Roseum Elegans'—fuchsia-purple
- 'Wellesleyanum'—white, tinged pink

The habitat of *Rhododendron catawbiense* is in the Great Smoky Mountains.

decorum 18′ Zone 5 **Sweetshell Rhododendron**
This shrub has white to pink flowers in early June and evergreen leaves 2–6 in. long. The fragrant, waxy flowers are excellent, but it should be given light shade and some protection within the northern limits of its hardiness range. It is popular with gardeners wherever it can be grown. It is native to western China.

ferrugineum 4′ Zone 4 **Rock Rhododendron**
Native to the southern European Alps, this has evergreen leaves, 1–1½ in. long, and rose-crimson to white flowers that are only ¾ in. across, appearing in June. It tends to be rather open at the base and needs correctional pruning to overcome this. Not especially popular in America because of the extra attention it requires to keep it looking well.

GABLE HYBRID AZALEAS. Joseph B. Gable of Stewartstown, Pa., crossed some azaleas, mostly *R. yedoense poukhanense* and *R. obtusum kaempferi*, and obtained some hardy evergreen clones, many fairly hardy in Zone 5 but not completely evergreen that far north. Most have flowers 1½–2½ in. across, predominantly of purple or purplish shades. Some of the varieties are:

FLOWER COLOR
- 'Big Joe'—reddish violet, 2½ in. dia.
- 'Caroline Gable'—red, 1¾ in. dia.
- 'Chinook'—orange-red, 2 in. dia.
- 'Herbert'—reddish violet, hose in hose, 1¾ in. dia.
- 'Kathleen'—clear pink
- 'La Première'—violet-red, very double, 1¾ in. dia.
- 'Mary Dalton'—orange-red, hose in hose, 1½ in. dia.
- 'Old Faithful'—reddish violet, 2½ in. dia.
- 'Rosebud'—violet-red, double, 1¾ in. dia.
- 'Springtime'—violet-red, 1¾ in. dia.
- 'Stewartstonian'—clear red
- 'Viola'—reddish violet, 2¾ in. dia.

x gandavense 6′–10′ Zone 4 **Ghent Azalea**
This hybrid group includes many deciduous azaleas of mixed parentage, some of which are hardy as far north as central Me. They have white, pink or red single or double flowers in late May, according to variety. They are of hybrid origin (*R. flavum* x *R. mortieri*). A bright-colored ornamental group, some of the better varieties are:

SINGLE FLOWERS
- 'Altaclarensis'—orange-yellow
- 'Beauté Celeste'—scarlet
- 'Bijou des Amateurs'—light pink
- 'Charlemagne'—coral to orange
- 'Coccinea Speciosa'—red
- 'Comte de Flandres'—carmine
- 'Cymodece'—light pink
- 'Flamboyant'—orange
- 'Furst Camille von Rohan'—white to yellowish
- 'General Trauff'—rose, shaded orange
- 'Gloria Mundi'—fire red
- 'Heureuse Surprise'—white, shaded rose
- 'Irene Koster'—light pink
- 'Nancy Waterer'—yellow
- 'Pallas'—brilliant reddish orange
- 'Pucelle'—rose
- 'Unique'—bronze

DOUBLE FLOWERS
- 'Bijou de Gentbrugge'—white, flushed pink
- 'Graf von Meran'—rose, white center
- 'Narcissiflora'—sulfur yellow
- 'Raphael de Smet'—white, flushed pink
- 'Souvenir du President Carnot'—orange and brick-red.

GLENN DALE HYBRID AZALEAS. Mr. B. Y. Morrison, formerly of the U.S. Department of Agriculture and first director of the National Arboretum in Washington, D.C., made many crosses in an attempt to obtain better azaleas for the Mid-Atlantic states. Nearly 500 varieties were selected and named (from 70,000 seedlings) at Glenn Dale, Md. Many species and varieties were used as parents, including the Indian hybrid azaleas, the Kaempferi hybrids, *R. mucronatum* and *R. yedoense poukhanense*. Some of the resulting clones have flowers as large as 4½ in. wide. The habits of those selected vary widely, ranging from low, mounded types to tall types. Many bloom from mid-May to early June, but there are varieties among this large group which bloom from mid-April to mid-June. Most of the varieties are not hardy much north of Washington, D.C., but a few can be grown as far north as Boston, Mass. A few varieties are:

FLOWER COLOR
- 'Bacchante'—red with purple dots, 3 in. dia.
- 'Bayou'—white with occasional scarlet stripes, 2½ in. dia.
- 'Blushing Maid'—pink, 2½ in. dia.
- 'Campfire'—brilliant purple, 1½ in. dia.
- 'Green Mist'—white with greenish blotch, 2½ in. dia.
- 'Marjorie'—rose, 3 in. dia.
- 'Pink Ice'—double, mallow purple, 3 in. dia.
- 'Rosalie'—brilliant pink, 3 in. dia.
- 'Souvenir'—hose in hose, salmon pink, 1¾ in. dia.
- 'Vanity'—deep rose pink, 1¾ in. dia.
- 'Whitehouse'—white, 3¾ in. dia.
- 'Yeoman'—white, striped red, 2½ in. dia.

hirsutum 3′ Zone 4 **Garland Rhododendron**
Native to the mountains of Europe, this is one of the few evergreen rhododendrons which can grow in limestone soils. The leaves are about an inch long, ½ in. wide, slightly scaly beneath. The small flowers, about ½–¾ in. across, are rosy pink to rosy scarlet, produced in terminal clusters in June. Not especially outstanding except for its ability to grow in limestone soils.

impeditum 18″ Zone 4 **Cloudland Rhododendron**
A good rock garden plant, with blue flowers ¾ in. across, appearing in April and May, and small evergreen leaves less than ½ in. long; native to China. It is easily cultivated and is compact in habit, but does not do well where there are hot, dry summers. Plenty of atmospheric moisture seems to be what it needs.

japonicum 6′ Zone 5 **Japanese Azalea**
A very hardy, deciduous azalea from Japan, with orange-red or salmon-red to brick-red flowers, 2–3 in. across, in late May. These have an obnoxious odor. The leaves are 1½–4 in. long. Valued because of its hardiness, it is often used in hybridizing work, but it should not be planted in large masses near the house because of the unpleasant odor of the flowers.

x keiskei 8′ Zone 5 **Keisk Rhododendron**
Valued in the northern U.S. because if is the only hardy, yellow-flowered, evergreen rhododendron, this plant, native to Japan, has a rather straggly habit. The flowers are mimosa yellow, 1½ in. wide, appearing in mid-May, and the leaves are up to 2½ in. long.

KNAP HILL AND EXBURY HYBRID AZALEAS. These contain many gorgeous azaleas with brilliant colors, the flowers being 2–3 in. across, mostly single. Some have as many as 18–30 flowers in a single cluster. Colors range from white through cream, pink and orange to red. They originated in England in 1870, and many of the more recent hybrids originated on the English estate of Lionel de Rothschild. They were chiefly from *R. molle*, *R. occidentale* and *R. arborescens* crosses and are hardy in Zones 5 and 6. A few striking ones are:

FLOWER COLOR
- 'Brazil'—reddish orange
- 'Daybreak'—orange-yellow
- 'Debutante'—rose-pink
- 'Exbury White'—white
- 'Fireglow'—orange-vermillion
- 'Gibraltar'—orange
- 'Glowing Embers'—reddish orange
- 'Gold Dust'—deep yellow
- 'Hiawatha'—bright red
- 'Pink Ruffles'—pink
- 'Rocket'—apricot
- 'Satan'—scarlet
- 'Sun Chariot'—yellow, flowers 3½ in dia.

x kosterianum 5′ Zone 5 **Mollis Hybrid Azaleas**
A cross between *R. mollis* and *R. japonicum*, the flowers of these deciduous clones range in color from yellow to red, in many combinations, blooming in late May. These are not so hardy as the Ghent azaleas. A few of the better varieties are:

FLOWER COLOR
- 'C. B. Van Nes'—fire red
- 'Comte de Gomer'—soft red
- 'Comte de Papadopoli'—rose, shaded orange
- 'Comtesse de Kerchove'—pale pink or orange
- 'Consul Ceresole'—porcelain rose, 3½ in. dia.
- 'Hugo Koster'—poppy red
- 'Otto Lilienthal'—ivory white
- 'Phidias'—light pink and yellow
- 'Snowdrift'—white

x laetevirens 4′ Zone 4 **Wilson Rhododendron**
An evergreen hybrid (*R. carolinianum* x *R. ferrugineum*) with pink to purplish flowers, 1 in. wide, appearing in early June, and light green leaves 3½ in. long; this is a small, neat plant for the foundation planting or for a partly shaded spot in the rock garden. A good species, it should be used more.

lapponicum 1½′ Zone 2 **Lapland Rhododendron**
A prostrate evergreen shrub, native to the mountains of northern North America, Europe and Asia, with very small, purple, bell-shaped flowers ½ in. wide, appearing in June, and leaves only ¾ in. long. It has fine texture and does not grow well in areas with hot summers. Otherwise, it is a splendid plant for the rock garden or the front of the ericaceous border.

maximum 12′–36′ Zone 3 **Rosebay Rhododendron**
Perhaps the hardiest of the large evergreen rhododendrons, this has leaves 5–10 in. long and small rose-colored or purple-pink flowers in late June, after much of the current year's growth has been made; hence the flowers are frequently hidden. It should be given semi-shade, for it is found in rather open woods in eastern North America. Used not so much for its flowers as for its evergreen foliage in background plantings. Varieties **album** (with white flowers) and **purpureum** (with flowers deep pink to purple).

MORE-

Wyman's Garden Encyclopedia

micranthum 5′ Zone 3 **Manchurian Rhododendron**
The evergreen leaves are only ¾–1¾ in. long, and the small white flowers, appearing in June, are produced in many flowered terminal clusters 2 in. across. From a distance the flowering formation has been likened to that of a spirea. Native to Korea and Manchuria, it is not one of the most ornamental rhododendrons.

minus 15′ Zone 4 **Piedmont Rhododendron**
Native to the southeastern U.S., this is somewhat similar to *R. carolinianum*, with rose to white flowers, 1½ in. across, in June and evergreen leaves 2½–4 in. long. This species, however, is taller and more vigorous than *R. carolinianum*

mucronatum 6′ rarely 9′ Zone 5 **Snow Azalea**
An evergreen or half-evergreen azalea from Japan, with fragrant white flowers 2 in. wide and leaves, 1–2½ in. long, of a poor, grayish-green color. It is the hardiest of the white-flowered evergreen azaleas. Its dense habit of growth is important in making it useful. Several varieties are available: **'Amethystinum'** with pale lilac-purple flowers; **'Narcissiflora'** with double white flowers and **'Plenum'** with double, rose-purple flowers.

mucronulatum 6′ Zone 4 **Korean Rhododendron**
Actually a deciduous rhododendron, from north China, Manchuria, Korea and Japan, with pale, rosy-purple flowers in mid-April. The leaves, appearing after the flowers, are 1–3 in. long and turn a yellow to bronzy crimson in the fall. Because it blooms so early, it might well be planted with a northern exposure to protect it from late freezes which may kill its blossoms. A good variety is **'Cornell Pink'**, with flowers a soft pink without any of the purple shades which appear in the flowers of the species.

x myrtifolium 4′ Zone 5 **Myrtle Rhododendron**
A very nice hybrid (*R. minus* x *R. hirsutum*), with light rosy-pink flowers, about 1 in. wide, and elliptic evergreen leaves, 1–2 in. long, which are densely produced. An excellent low shrub for foundation planting, though it is not readily available from commercial growers.

nudiflorum 6′ Zone 3 **Pinxterbloom**
Native from Mass. and Ohio to N.Car. and often called Wild Honeysuckle, this deciduous Azalea has white to light pink, odorless flowers, 1½ in. wide, during late May. *R. roseum* is similar, but has more deeply colored pink flowers.

'P.J.M. Hybrids' (*R. dauricum sempervirens* x *R. carolinianum*) 6′ Zone 5
The flowers of these hybrids are a vivid lavender pink and extremely profuse, literally covering the plant in late April. The plants produce little seed, which is one of the reasons why they bloom so heavily each year. The evergreen leaves are like those of *R. carolinianum* in size and shape. These turn a rich purple in the fall. Fine plants for early garden display; it is unfortunate that several seedlings were released under this general name, some having slightly inferior flowers. It would have been much better if only the best clone had been selected, asexually propagated and the offspring released.

racemosum 2′–6′ Zone 5 **Mayflower Rhododendron**
The evergreen leaves of this western Chinese plant are about 1½ in. long or less. The flowers are only ¾ in. wide, in few-flowered clusters, colored a light pink in mid-May. It is an excellent plant for mass plantings or for the rock garden.

roseum 9′ Zone 3 **Roseshell Azalea**
Similar in most respects to *R. nudiflorum* except that the fragrant flowers are bright pink and 2 in. wide. The deciduous leaves are 1–3 in. long, and it is native to northeastern North America. Since *R. nudiflorum* is odorless, this Roseshell Azalea could be considered a better plant.

rupicola 2′ Zone 5
A rare Chinese evergreen rhododendron with purplish-crimson, funnel-shaped flowers, ½ in. long, in April or May. Apparently able to grow in limestone soils.

russatum 2′–4′ Zone 5 (?) **Royal Alp Rhododendron**
Blue-purple flowers in April are about 1 in. wide and number 5–10 to the truss. Leaves about ¾–1¾ in. long. Native to China. This is a very floriferous, dwarf, evergreen shrub, but needs alpine conditions, with plenty of cool summer temperatures and atmospheric moisture, to do best.

schlippenbachii 15′ Zone 4 **Royal Azalea**
One of the very best deciduous azaleas, with pale pink blossoms 3 in. wide during mid-May and leaves, 2–4 in. long, which turn yellow, orange and crimson in the fall. It is native to Korea, Manchuria and Japan; a valued plant for any garden with acid soil.

smirnowii 6′–18′ Zone 4 **Smirnow Rhododendron**
An evergreen rhododendron with leaves 3–6 in. long which are covered with a thick, felty tomentum underneath—an excellent deterrent to the lace-winged flies which frequently infest most other rhododendrons. The flowers vary from white to rosy red, most plants having lavender-pink flowers. Native to the Caucasus.

ungnerii 20′ Zone 5 **Ungern Rhododendron**
Evergreen, with leaves 3–6 in. long, and pale white to rose-colored flowers, 1½–2 in. wide, in large, 6-in. trusses. Native to the Caucasus.

vaseyi 6′–9′ Zone 4 **Pinkshell Azalea**
Native to N.Car., this deciduous azalea is perfectly hardy in New England. It is valued for its light rose flowers in mid-May (before the leaves appear), the light red autumn color of its foliage and its ability to withstand growing in moist soil situations. The leaves are 2–5 in. long. The variety **album** has white flowers. One of the very best of the native American azaleas.

viscosum 9′ rarely 15′ Zone 3 **Swamp Azalea**
A very fragrant, native, white-flowering, deciduous azalea, blooming in early July after all the leaves have been fully developed; this is found, especially in moist soils, from Me. to S.Car. The leaves are 1–2½ in. long and turn orange to bronze in the fall. The variety **rhodanthum** is rare, but should be grown, whenever it can be obtained, for its bright pink flowers.

yedoense 5′ Zone 5 **Yodogawa Azalea**
The double flowers of this species are purple, appearing in mid-May. Even the deciduous leaves, which are 1–3 in. long, turn purplish in the fall. It is native to Korea and Japan. The single-flowered variety **poukhanense** has flowers 1¾ in. wide and is hardy in Zone 4, being hardier than the species. It flowers freely even when quite small.

REF. 635.03 W
WYMAN'S GARDENING ENCYCLOPEDIA ©1971
PP. 922–935

RHODODENDRON SPECIES (FAIRLAWN)

ENGLAND (CAREFUL!)

History of the Genus Rhododendron

R. maximum is an evergreen rhododendron which arrived in Britain from North America in 1736, about thirty years before the European *R. ponticum*. In the Appalachian Mountains it is a tree up to 30 feet tall; the flowers are small and not very striking; they have been described as 'apple-blossom-like'. It is a late-bloomer and has produced some attractive hybrids: two of these are 'Mum' (white with lemon eye) and 'Lady Annette de Trafford' (blush pink with dark brown blotch).

Another important aggregation of azaleas (some deciduous, some evergreen) occurs in Japan. Among the best known are *R. japonicum* (orange to flame-red with variations); *R. albrechtii*, popularly known as Albrecht's Azalea (2-inch red-purple flowers); *R. pentaphyllum* from woodlands, where, with its masses of bright rose-pink flowers on the leafless branches, it is a wonderful sight early in the year; *R. obtusum*, a very variable species in colour: salmon, pink, mauve . . . and evergreen or semi-evergreen; it is thought to be a natural hybrid (see page 25) and from it and other Japanese species the glorious Japanese Evergreen Azaleas have been bred. *R. nipponicum* (white bell-shaped flowers); and *R. mucronatum* (white-flowered and evergreen) are two others.

There is a lovely, yellow, scented azalea known to everybody, which grows in our woodlands – it is naturalized as widely as *R. ponticum* in many districts; its popular name is *Azalea pontica* (listed now, however, as *R. luteum*); and it is the only European species; a native of the eastern regions, very common in the Crimea and found in Asia Minor. In the opinion of most gardeners it is the finest of all azaleas, for it combines so many good qualities: bright golden-yellow colour, fragrance, hardiness, and brilliant autumn tinting of the leaves. It is most at home in thin woodlands but settles down readily in a shady border. This azalea was first discovered by the German naturalist and traveller, Pallas (1741–1811) in 1793 in the Crimea, where he had gone to live. He sent seeds to England, from which our first specimens were raised. It is, by the way, one of the easiest of all the species to grow from seed.

By the middle of the nineteenth century we were in possession of many fine rhododendron species from both Asia and North America, the most striking of which were used by collectors and nurserymen as stock plants for raising hybrids. *R. catawbiense* (N. America), 1809; purplish; very hardy, stands exposure better than *R. maximum*; evergreen (like that species), usually 6 to 10 feet high and much wider; in the wild it reaches 20 feet. 'Caractus', purplish-red, is one of the many popular hybrids raised from it.

R. caucasicum, a native of the Caucasus, introduced in 1803; evergreen, dwarf shrub, with often yellowish flowers; the flowers are usually described however as rosy-white. This shrub is now extremely rare in cultivation. Two hybrids it has helped to produce are 'Sulphureum', sulphur-yellow flowers in May; and 'Caucasicum pictum'; flowers a soft pale rose.

The beautiful scarlet *R. thomsoni* from Nepal and Sikkim arrived here in 1849, about the same time as *R. barbatum*, which comes from the Himalaya, a species described as the 'reddest' of all rhododendrons (it has been said that its colour would be impossible to reproduce in paint). 'Alix A.M. var.' is one of the best of all the scarlet hybrids (its parents are *R. barbatum* and *R. hookeri*). 'Barclayi' is another very fine red (parentage: *thomsonii* × 'Glory of Penjerrick').

marked 'C' in catalogues, which letter indicates that it is 'hardy along seaboard and in warm gardens inland'. (The letters A to F are used to indicate the relative hardiness of a plant. The A's are the toughest. The F's the most tender, suitable in fact only for a cool greenhouse).

If we were collectors of rhododendrons, it would be to Yunnan in Western China that we would go, for there exists the greatest number, the greatest concentration of species in the world. (More than two hundred different species have been discovered so far.)

Many rhododendrons inhabit mountainous country and are found at high altitudes: the small-leaved types grow high up in exposed places – *R. lepidotum*, for example, has been discovered at 15,000 to 16,000 feet (Nepal, Sikkim and Yunnan). These plants are wide, spreading shrublets (like masses of heather that grow in moorland country). For many months of the year they are covered with snow and consequently are protected from the intense cold and tearing winds. Nothing of course would grow tall and lush under these conditions. The small leaves, the small flowers and the spreading shape are well adapted to the rigours of icy mountainous regions.

Similarly, in the European Alps, at lower altitudes, the Alpine Roses are found on limestone rock, growing in a few inches of soil; but the soil is acid vegetable mould and rhododendrons are surface-rooting plants; secondly, these species are never without moisture, since wet mountain mists are of frequent occurrence; in summer the plants are often shrouded in mist several times a day – it is as though they had been regularly sprayed and syringed with rain water. Under cultivation, then, the dwarf rhododendrons and azaleas will as a rule put up with more exposure than the taller, bigger species – provided they get a continual supply of moisture at the roots and the soil is perfectly drained.

R. glandulosum,
another species forming a dense clump, with rose-purple flowers, comes from the Arctic regions and, like the preceding species, is for long periods covered with snow. In the mountainous parts of Manchuria and Siberia species are found which are very hardy and flourish in most parts of Europe.

The species suitable for our gardens come mostly from the temperate zone of the northern hemisphere. Only one known species is found in the south – in Australia; this is *R. lochae*. None grows in Africa or in South America.

The genus *Rhododendron* is vast: botanists recently listed about 850 different species. There may, however, be natural hybrids and geographical varieties among them: *R. kingianum*, for example, is described by many writers as 'botanically no more than a variety of *R. arboreum*'. *R. kaempferi* (better known perhaps as *Azalea kaempferi*), is now regarded by many gardeners as a variety of *R. obtusum*, an azalea found in central and southern Japan.

There are hundreds of species listed in nurserymen's catalogues, but on the whole amateur gardeners don't grow them: they prefer the better-known hybrids, raised, some from species, others from crosses between the species.

Hybridization began at the beginning of the nineteenth century, when crosses were made between *R. catawbiense* and *R. ponticum*. 'Everestianum', with rosy lilac flowers, frilled and spotted, was one of these – a catawbiense hybrid raised in 1850 by the firm of Anthony Waterer. It is still obtainable and a favourite, very hardy shrub. 'Purple Splendour' is another of Waterer's varieties and in the opinion of most gardeners the finest purple hardy rhododendron yet grown. 'Alice', deep pink; 'Fastuosum plenum', double mauve; 'Britannia', a glowing red; are a few more of the old, so-called 'ironclad' garden hybrid rhododendrons. They were and still are prized not only for their large trusses of vividly coloured flowers, but for their fine evergreen leaves which are so attractive all through the year and incidentally (though it is an important point) make an excellent permanent ground cover, which keeps down the weeds. The famous, perhaps the most famous, garden rhododendron is 'Loderi' (which name heads a group of magnificent shrubs with different coloured flowers) – it was raised by Sir E. Loder from *R. fortunei* and *R. griffithianum*, the latter not a hardy species.

Amateur and professional gardeners as well as the established nurseries soon began experimenting and produced some choice varieties. Not only in Britain, but in many other countries: Kluis; Koster (Holland); Hobbie (Germany); van Houtte (Belgium); and the U.S.A. By the middle of the present century Rhododendrons and Azalea Nurseries had sprung up in all these countries and the number of hybrids and varieties that have been produced since that time is probably inestimable. We are guided usually by what we see at the shows, which give us the best of the newest plants; or at the nurseries, where we often come across specimens of the old, reliable plants that were produced a long time ago.

AN 11

RHODODENDRON SPECIES (ENGLAND)

RHODODENDRON SPECIES (ENGLAND)

For owners of small gardens and moderate-sized gardens, it is more profitable to grow those species and hybrids which have been proved hardy by long trial in different parts of these islands. Many lists have been made of 'favourite species' and 'favourite hybrids'. It is worth quoting one of these, made by the famous raiser of rhododendrons. O. C. A. Slocock, whose nursery is in Surrey. The list consists of twelve species and eleven hybrids, all of which are fully described later on. First, the species:

R. barbatum
R. campylocarpum
R. cinnabarinum
R. discolor
R. fortunei
R. griersonianum
R. hippophaeoides
R. kingianum
R. mucronulatum
R. russatum
R. sutchuenense
R. thomsonii

The garden hybrids are:

'Blue Peter'
'Britannia'
'Corona'
'Earl of Athlone'
'Fastuosum flore pleno'
'Lady Clementine Mitford'
'Letty Edwards'
'Mount Everest'
'Souvenir de Anthony Waterer'
'Souvenir of W. C. Slocock'
'Unique'

These are all magnificent shrubs; there are of course too many for a small garden, and those with only a limited space would naturally choose the hardiest. I have not included the Series or Subseries, to which these plants belong; the information (of value to breeders of new rhododendrons) will be found in the R.H.S. Rhododendron Year Books and in the admirable Dictionary published by the Society.

Some of the Best Species

ALL THE PLANTS in Mr. Slocock's list are rated high by the experts. Most of the species are four-starred plants (marked in this way: *****thomsonii*), which indicates tip-top grading; and the hybrids have received awards at the Royal Horticultural Society shows – some plants First Class Certificates; others, Awards of Merit. I imagine they all flower successfully in Surrey. My special favourite: the March-blooming *R. barbatum* is easily ruined by frost, which often attacks when the flowers are about to open. In a sheltered spot, far south, or within reach of the warm Atlantic, it would do well. But more often than not in this district (South Bucks.) its flowers are badly damaged. It would hardly be worth growing in the North. It is such a striking plant that some gardeners near London give it a protected spot against a wall and wait for a frost-free spring, which occurs perhaps once in three or four years.

R. discolor, however, is completely hardy and a valuable shrub for any garden near London. Some of the best specimens I have seen at Kew Botanical Gardens, and they bloom freely there – as late as mid-July, which is late for a rhododendron. It is a three-starred species and classed as a B shrub.

Those fortunate gardeners living in the warm south have, of course, a wider choice than those of us living near London or farther north. We are limited to plants labelled A or B, which are the hardiest. We miss perforce the joy of growing many lovely things like the famous 'Loderi', which needs a soft, mild climate, if it is to do really well. One species I would include in my list, despite the fact that the plant is a winter-blooming shrub is *R. mucronulatum*, which Mr. Slocock lists, and which the collector, F. Kingdon Ward called the most beautiful of all the species and one that no garden should be without.

It blooms sometimes as early as Christmas and if it loses its flowers through a severe frost, there are plenty of buds to open later in the year when the weather gets milder.

Another species I wouldn't be without is *Azalea vaseyi*, which is a four-starred shrub and labelled B (hardy anywhere in U.K. but likes some shade). Both these species would be a success in inland gardens and could be planted safely in or around London.

Of course, we should get a much more striking effect, if, instead of growing twelve different species (similar to the list given on page 30), we grew twelve specimens of one kind only. For instance, a dozen *Azalea vaseyi* grown together would give a charming picture of massed pink blossom, which would be at its best about early May. And some specimens of *R. mucronulatum* massed near the house would help to brighten the grey winter days.

These are two 'must' species for me and probably for every other rhododendron-lover with an inland garden. The choice of species depends naturally on (*a*) district; (*b*) size of garden; (*c*) the personal preference of the gardener – some like a medley of colours; others, one or two species massed on their own; (*d*) suitable sites.

In a handbook this size, I am limited to a description of a very few species; but I consider the ones I have chosen some of the most beautiful and the most desirable. I have described their essential points. (People who like more showy plants will no doubt prefer to grow the garden hybrids; a selection of these is given in Chapter 5.)

The first on our list is a North American azalea:

R. arborescens (tree-like). (Listed as an azalea in some current catalogues.) A very hardy, deciduous shrub (8 to 20 feet tall) with white or pinkish-white, honeysuckle-shaped flowers and a scent like heliotrope, which is most perceptible when the plants are massed. The flowers come in July, when the leaves are fully grown. Not particularly showy, but suitable for any garden and growns practically anywhere. The soil must be lightish, sandy and leafy and kept moist by an annual mulching. Some good specimens at Kew.

R. auriculatum (ear-shaped: in reference to the 'ears' or lobes – auricles – at the base of the leaves). One of the latest of all to bloom: usually the flowers, white or pink, scented and funnel shaped, and coming in clusters of six or eight, are at their best in August. It is recommended for the south, because in the North and in cold inland gardens it makes new growth very late – at Kew it starts to move about July. This species is ultimately a large evergreen shrub (a tree in nature). Its leaves, dark green and handsome, are oblong shaped, the biggest 15 inches long. In catalogues it appears as a B shrub (hardy and needing some shade – its habitat is the moist woods of West Hupeh, China), but it is better in Devon and Cornwall than in Buckinghamshire and other counties near London. Hybridists see in it a good parent plant for producing a race of late-blooming varieties: 'Polar Bear', with enormous trusses of scented white flowers in August, is one of the most famous.

R. camphylocarpum (with bent fruit, i.e. seed-pods). The collector, F. Kindon Ward described it as 'One of Sikkim's most precious gifts'. In its best form, the flowers are a clear canary yellow. They are slightly fragrant and come in May in clusters of six or eight, and are bell-shaped and about 2½ inches across. The shrub is evergreen, from 4 to 8 feet tall, but a slow grower, and it likes partial shade. Since it flowers so freely (when once well established), many gardeners advocate disbudding it every second year to prevent it from exhausting itself. However it should be annually fed with rotted manure and peat; and one must not forget to remove all faded flower-heads. It is perhaps the purest yellow of all the species; and it is a most attractive foliage shrub. It is more successful in the drier parts of Britain than in districts with a high rainfall.

R. calendulaceum (marigold-like: the flowers are shades of deep orange, etc.). This is a vividly-coloured Azalea (known as the Flame-azalea), a native of eastern North America, where it is found covering the lower slopes of the Carolina Mountains. A lot has been written about it: its magnificent colours, which range through yellow, orange and scarlet, have been described as resembling fire in the distant sunshine; and gardeners like it for the ease with which it is grown in any garden, practically anywhere. The famous Knap Hill strain of deciduous azaleas were raised from this species and another: *Azalea sinensis*. The Flame Azalea blooms in May, its flowers, 2 inches across, coming in clusters of about five. It likes a leafy, sandy soil and plenty of moisture through the growing season. Most people prefer the hybrids raised from it, but it is doubtful whether they are any more brilliant in colour than the parent plant. Under cultivation it makes a shrub up to 8 feet tall.

R. cinnabarinum (cinnabar-red: referring to the flowers). An evergreen shrub up to about 6 feet tall, a native of the Sikkim Himalaya. The flowers, funnel-shaped, 2 inches long, come in clusters above the leaves. They are of a striking orange-red colour, the beauty of which is much enhanced when the sun catches them – so much so in fact that landscape gardeners say it should be in a position where the rising or setting sun can show through the flowers. It is a completely hardy shrub which blooms in May. The best forms should be asked for when ordering specimens. *R. cinnabarinum blandfordiaeflorum* has yellow flowers flushed red at the base; and the form *roylei*: ruby-red flowers and very glaucous leaves.

R. concatenans (linking together). It is thought that this rhododendron may be a hybrid, and according to botanists it is a link between the Triflorum Series (smallish species from Yunnan and Szechwan in China and the Cinnabarinums of the Himalaya). The hanging, bell-shaped, waxen flowers of an apricot-yellow are at their best in May and look very striking against the blue-green glaucous leaves. It is a medium-sized shrub and likes partial shade.

R. dichroanthum (two-coloured flowers). The flowers are orange as a rule, with usually a touch of pink in them; and those of some plants are more beautiful than those of others. There is a good orange variety called Exbury Form, which is one of the best.

This species, a native of Yunnan is a medium-sized evergreen, with smallish leaves, dark green above and a delightful silvery-white beneath. The flowers, narrowish bell-shaped (1¾ inches long) come in clusters and open in May or June. Partial shade is best for this shrub.

R. discolor (different colours). It is one of the last to bloom, its flowers often opening during the second week of July. They are pink or white, with a touch of yellowish-green at the base and deliciously scented. There are some fine specimens at Kew Botanical Gardens.

Its average height, under cultivation, is about 12 feet, though in warmer places much more than this, The flowers are funnel-shaped, 3 inches across at the mouth and come in large clusters. They look most striking against the dark green leaves, which remain attractive all through the year. Best in partial shade.

R. fortunei (named for Robert Fortune, a famous collector, working in China during the nineteenth century). This is a parent of some very beautiful hybrids and regarded as one of the loveliest of all the species. It is an evergreen, up to about 10 feet tall in this country; the largest of the leaves measure 8 inches in length and are 3 inches wide. The flowers, fragrant, come in terminal clusters, the single flowers measuring 3 inches across the top; they are roughly bell-shaped and begin to open in May. They are a lovely blush which fades to white after a time. This species doesn't seem to mind occupying an open position in the garden.

R. haematodes (blood-like). The flowers are almost as striking as those of the preceding species. It is a compact, smallish shrub, evergreen, with very attractive leaves – dark glossy green above and densely felted with reddish-brown beneath. The wax-like, bell-shaped flowers are carried in clusters of six to ten and open in mid-May. It is a useful hardy species for a partially-shady place and gives a magnificent show of colour. It looks particularly attractive (and is ideally situated) in thin woodland.

R. hippophaeoides (resembling sea-buckthorn). An early-blooming species, with small lavender flowers, which is at its best in April. The leaves are dark green above, greyish beneath, narrowly oval in shape, about 1½ inches long. It is a fine shrub (about 2 feet tall as a rule) for massing; and it is completely hardy. Its habitat is exposed, often boggy, places at altitudes of 12,000 feet in Yunnan, China. It is mostly listed in catalogues as a rhododendron suitable for the rock-garden. When ordering, the best blue form should be asked for.

R. kingianum (named for Sir George King, 1840–1909, director of the Botanic Gardens, Calcutta). This plant is regarded as being a geographical form of *R. arboreum* and is found wild in Manipur, North-east India. *R. kingianum* is a smaller, slow-growing shrub. The leaves are broad and the deep scarlet flowers come in compact trusses or clusters. The flowers open in late June and give a wonderful display of colour.

R. luteum (yellow). This is, or was, *Azalea pontica*, a native of Eastern Europe. A hardy, deciduous shrub usually 6 to 8 feet tall in our gardens, with really delightful golden-yellow scented flowers (shaped like large Honeysuckle) which come in May before the leaves are fully open. It suckers freely and is therefore very easily increased. In the past it was used as a stock plant for grafting the Ghent Hybrid Azaleas. The best place for this lovely shrub is the thin woodland. It looks a little out of place, I think, in the garden proper, though a bed of, say, a dozen plants under-planted with Bluebells in a semi-shady spot would make a wonderful association for any garden.

R. oreotrephes (mountain dweller or 'mountain bred'). An evergreen, which in nature is sometimes a tree, Under cultivation it is not much more than a bush – about 6 feet tall. The leaves, rounded and about 3 inches long, show up the open bell-like mauvish flowers to perfection. They come about the end of April in profusion, especially if the plant is grown in a spot which catches all the morning sun. Here, in South Bucks., this species often loses its leaves during the winter.

R. racemosum (flowers in racemes). The best way to grow this dwarf, evergreen species (from China) is in a wide mass or in drifts, as an edgeing to, say, a shrub border; for then one gets a better show of flowers. These are small, bell-shaped, about an inch across and come in clusters along the stems. The colour is pink or pinkish-white. One of the really hardy dwarfs, as hardy probably as heather.

R. radicans (rooting stems). This is a much dwarfer species: seldom above 4 inches high and of creeping habit. It makes close tufts of foliage and purple flowers about ¾-inch long. An enchanting little alpine plant for the rockery. Although completely hardy, it does best in partial shade, or at least close against the rocks to keep it cool. It blooms in May. A native of South-east Tibet, where it grows on open stony moorland at high altitudes.

R. russatum (reddened). The name probably refers to the reddish flower-stems and other parts which have a suggestion of red about them. It is a dwarf evergreen species from Yunnan, with smallish vivid purple flowers about 1 inch wide, and small leaves, dark green above and a rusty yellow beneath. It should be massed to get the best effect and it is an ideal plant for the rock-garden. In the wild it reaches a height of 4 feet. Under cultivation it is less than that; and its blooming season is April. A yellow-flowered shrub would make a good companion for it – and this has been suggested by many landscape gardeners. A good one is the dwarf Double Gorse, which blooms about the same time – it need not be planted in close proximity: one plant could be one side of a pathway; the other on the other side.

R. schlippenbachii (in honour of Baron von Schlippenbach, naval officer and traveller). Often still referred to as an Azalea. According to reports from the U.S.A., this Asiatic species (Manchuria, Korea, Japan) does best in soils which are less acid than those required for the average Rhododendron. The flowers, fragrant and of a charming rose colour, appear as the leaves begin to form; the flowers are 3 inches wide, and the leaves, broad at the top, come in clusters of five or so at the end of non-flowering shoots. A lovely medium-sized shrub when in full bloom (early May as a rule). Unfortunately its flowers are frequently damaged by late spring frosts, the mild spells of weather we get bringing the buds on too quickly. Most gardeners seem to prefer another Asiatic Azalea, viz. *R. japonicum*, deciduous too, with flowers which range from orange-red through salmon to bright red. It gives a magnificent display of colour: more striking than *R. schlippenbachii*; but I have not found it any more frost resistant.

R. vaseyi (named for G. S. Vasey who discovered it in North Carolina in 1878). Sometimes listed in catalogues as *Azalea vaseyi* and described by Bean in *Trees and Shrubs Hardy in The British Isles* as 'A decisuous Azalea, attaining heights of 12 to 15 feet in a wild state, bushy.' As it blooms in May, its lovely shell-pink flowers are seldom if ever damaged by frost. These come a few weeks before the leaves appear. A fully-grown shrub (8 feet tall) covered with flowers on the naked branches is a remarkably beautiful sight. It does best in partial shade and cannot tolerate dryness at the roots. Mulching should be done annually, the right time for this being early April. In common with all Rhododendrons, it doesn't flower freely unless the seed-pods are removed. Many of the deciduous Azaleas give a fine display of autumn tints: *R. schlippenbachii* does; and *R. vaseyi* its leaves turning yellow, scarlet and gold, is one of the most striking. The common name of this plant is Pinkshell Azalea.

R. viscosum (sticky: the corolla is covered with sticky hairs). This is another deciduous Azalea from North America and better known in our gardens perhaps than *R. vaseyi*; its white or pink honeysuckle-like flowers bloom much later, often in July, and are delightfully fragrant. The common name of the plant is the Swamp Honeysuckle, which may be misleading, since the plant doesn't require swampy conditions. The flowers come in clusters at the end of the stems and are not very conspicuous. the leaves often hiding some of them. It is a good autumn-tinting shrub. It usually reaches a height of 6 feet and is one of the most valuable of all the hardy Azaleas. Apparently the plant was used in the production of some of the Ghent Hybrids; few of the oldest are now obtainable; 'Daviesii', however, is still famous and has fragrant white flowers with a yellow eye. It will be found in most shrub catalogues today.

RHODODENDRON HYBRIDS (ENGLAND)

A Choice of Hybrid Rhododendrons

MOST PEOPLE when they think of Rhododendrons, picture to themselves large trusses of flowers (scarlet and pink, usually) nestling against handsome glossy evergreen leaves, and associate them with early summer. These are the hybrid type, which on the whole are much hardier and more suitable for general planting than the species. And many people prefer them.

There is a vast number to choose from, many of which can be planted in exposed places where they get quite a lot of sun. The chief difficulty is no doubt deciding which to buy. Most of O. C. A. Slocock's favourite hybrids (see page 30) are the old ones, very hardy plants derived from the first species introduced here, namely *R.R. caucasicum*, *catawbiense*, *arboreum*, *maximum*, and *ponticum*.

The crossing of one species with another (as with these) is usually known as a primary cross, and these particular Rhododendrons produced the so-called 'iron-clad' hybrids. They are not so striking as some of the new hybrids raised from certain Asiatic species, but they have good colours and a wonderful constitution. Many will be found in the best collections in this country.

The following list contains old and new.

ALBUM ELEGANS: one of the old, very hardy hybrids raised by Waterer's at Knap Hill Nurseries. The name Album is a misnomer, for the flowers are not white but a charming pale mauve, which blends well with anything you grow near it. It is a *maximum* hybrid, and grows fairly tall, blooms mid-season to late and will stand full exposure. A shrub that can be used for a hedge or a screen. It is a favourite hardy variety in the U.S.A., by the way.

ASCOT BRILLIANT is another old hardy variety, but needs a little overhead shade for its flowers, which come early. They are a lovely crimson and may be spoilt by a late spring frost. A *thomsonii* hybrid.

B. DE BRUIN, an old hardy, with dark red flowers in May. The plant, rather loose in form, will stand up to any amount of wind and doesn't mind a hard frost.

BETTY WORMALD has lovely flowers, deep pink with a faint suggestion of purple on the upper petals. A hybrid of the PINK PEARL form – more tender than that plant, though, and likes partial shade. A mid-season shrub; and a mid-season bloomer.

BLUE PETER: of medium height, very suitable for small gardens; pale lavender-blue with a deeper coloured blotch. A mid-season bloomer. The bluest hardy hybrid.

BRITANNIA, a bright crimson-red hybrid, with deep green leaves. Mid-season and likes partial shade. A plant which is becoming hardier in our climate. The flowers retain their glowing colour better in shade.

BUTTERFLY has lovely pale lemon flowers with a chocolate blotch (a *campylocarpum* hybrid: actually a cross between 'Mrs. Milner' and *R. campylocarpum*). Wide open flowers carried in profusion at the beginning of May; they are more successful in partial shade.

CORONA, with its coral-pink flowers, is one of the favourite old hybrids: one of Waterer's. It seems to do better in rather exposed positions (to toughen it up) than in warm, sheltered places, which make it grow lush – the flower buds develop quickly then and drop off. A May bloomer.

COUNTESS OF DERBY ('Pink Pearl' crossed with 'Cynthia'). Very large rose-pink flowers in a large truss, which come in late May and June. A tallish shrub; hardy anywhere. This plant is a cross between 'Pink Pearl' and 'Cynthia', which are still two of the most popular hybrids we grow. ('Cynthia' is rosy-crimson and gives an even finer show in the North than in the South.)

EARL OF ATHLONE: a rich blood-red hybrid, blooming in late April and May. It was raised in Holland and does best in a rather sheltered place. It received a First Class Certificate (F.C.C.) in 1933. Through the course of years, in the hands of the nurserymen, the plant has become hardier, the strongest-grafted plants (undamaged by frosts) being selected for stock and increase.

FAGGETER'S FAVOURITE, a choice hybrid of *R. fortunei* with multicoloured flowers, pink predominating (perhaps), which come in May. It grows best in partial shade and has very fine green foliage.

FASTUOSUM FLORE PLENO, with semi-double mauve flowers in rosettes, is a form of *R. catawbiense*. A very hardy plant for full exposure. Of medium height and blooming at the end of May.

LADY CLEMENTINE MITFORD has large trusses of flowers, their colour a blend of pink and yellow, giving a peach tone. One of the best of the Anthony Waterer Hybrids. Blooms in early June, and is of medium height.

LADY ELEANOR CATHCART is one of the old hardy hybrids which are so suitable for exposed positions. June to July is its flowering season and it makes a fine tall shrub, with a mass of rose-pink flowers blotched with crimson. Excellent for a background.

LADY LONGMAN is no doubt an improvement on the preceding plant; the colouring is similar, but the plant is not so robust a grower.

LETTY EDWARDS, given an F.C.C. in 1948, is a cross between *R. campylocarpum* and *R. fortunei*. The flowers, which come in late April, are a clear yellow with often a dark red throat. They are large and come in a well-shaped truss; best in partial shade, with some overhead protection. A medium-sized shrub.

MARS: an F.C.C. in 1935; the flowers are a magnificent deep true red, though there is a bronzy sheen to the so-called pure colour. Very hardy, June flowering, of compact habit and really best, despite its toughness, in partial shade.

MOTHER OF PEARL: exquisite colouring: pink-blush turning pearl-white. (A good descriptive name.) A sport of 'Pink Pearl', which it resembles in character and growth. Blooms at the end of May, is of medium height and completely hardy.

MOUNT EVEREST is one of the whitest of the hybrids: a glistening white but has a touch of colour in its make-up (like all the white varieties). Slightly scented. The plant blooms in early May, is of medium height and likes partial shade.

MRS. FURNIVAL (F.C.C. 1948) is pink with a brown blotch and is a fine garden shrub of medium size. It is very hardy, and retains its colour well if planted in partial shade. Good, attractive foliage when the flowers have dropped.

MUM is a white Rhododendron with a yellow eye, attractive foliage and of a compact habit. A completely hardy hybrid which is one of the latest to bloom.

OLDPORT is a little difficult to get now, apparently. One of the old hardy hybrids. Many gardeners decry its plum-purple colour. It certainly needs careful placing, clashing badly as it does with any other colour containing red or blue. The flowers bloom in May. I have seen their plum-purple and the bright red of 'Charles Waterer' juxtaposed: a hard colour effect. This particular shade of purple needs really a contrasting yellow or orange with it.

PINK PEARL is known to everybody and is the most popular hybrid ever raised. A late May bloomer, with lovely large, rose-pink flowers, which fade to blush. The buds are a deeper richer shade of pink. The flowers are carried in a big conical truss, and the leaves are often a foot in length. A suitable plant for beds. It does best in partial shade. In full sun, the flowers are apt to fade rather quickly.

PURPLE SPLENDOUR is one of the old iron-clads and can be grown anywhere. Dark blue purple flowers with a black central eye or spot. Wonderful when massed against an evergreen background. A plant for any position and regarded as the finest purple yet raised, June is the flowering month.

SOUVENIR DE ANTHONY WATERER is a hardy hybrid carrying salmon-pink flowers and will be found in every important collection. A medium-sized shrub blooming in June. A glorious sight when massed against a dark green hedge.

SOUVENIR OF W. C. SLOCOCK, a fine hybrid of *R. campylocarpum*, deriving its yellow colouring from that species. Its buds open a soft apricot, which, with the primrose yellow of the open flowers, gives a charming effect. The shrub blooms in May and like the preceding hybrid prefers some shade on its flowers.

UNIQUE is another *R. campylocarpum* hybrid; it has good green foliage and forms a tight, compact bush. The flowers are a pale ochre tinged with peach, and open in April.

This list includes the eleven hybrids given on page 30, which, Mr. O. C. A. Slocock the Rhododendron expert says, no collection should be without. One could, of course, include another eleven equally oustanding. We might, too, like to have a wider choice of white hybrids, and many more dwarf kinds suitable for the rockery; more late bloomers; more early ones; and so on.

AN 14

RHODODENDRON HYBRIDS (ENGLAND)

White Rhododendrons are useful for interposing between bright colours which clash badly when juxtaposed. Few if any are pure white, the majority have a touch of some colour or other in them: a spot or a streak.

ARGOSY however, is one of the purest. A most desirable plant, since its flowers are scented and come in July.

BEAUTY OF LITTLEWORTH: a large white flower in May, the base slightly marked with rich crimson. Partial shade is best for this plant.

CUNNINGHAM'S WHITE. An old hardy hybrid (*R. ponticum* as one of the parents). White flowers with a yellow blotch. May blooming. An excellent choice for town and city gardens, since smoke doesn't harm the plant.

JAMES BURCHETT. a hardy shrub, a *discolor* hybrid. Big white flowers, spotted yellow on the upper petal. Enormous flower-clusters. A late June bloomer.

SAPPHO has white flowers with a black-purplish blotch. A very hardy hybrid. June blooming and ultimately a tall shrub.

SNOW QUEEN has white flowers, pink in the bud, and appreciates some shade. Blooms in May.

Late-blooming Rhododendrons appeal to gardeners naturally because the flowers are never damaged by frosts. One can always be sure of a good show of bloom from the species *R. discolor*, for example, in London gardens; it is usually at its best in July.

There are many to choose from: ARGOSY, heading the list of white varieties, is a *discolor* hybrid and is at its best in July. Half a dozen favourites are:

DIPHOLE PINK: rich pink flowers, spotted brown. Very hardy but likes shade.

GA. SIMS: dark scarlet, black-eyed flowers. Partial shade best.

MOSER'S MAROON: a very late shrub, with bright maroon flowers and reddish foliage in the young stage.

POLAR BEAR, one of the latest and white-flowered, too. I have seen the enormous trusses of flowers (fragrant) at their best in August. Makes a giant shrub in time.

SOUVENIR DE D. A. KOSTER: rich red flowers. An attractive bushy shrub.

WARRIOR: one of the old very hardy hybrids: fine crimson flowers which are carried in huge trusses.

An important point that must be considered is the age of the plant; for even the hardiest are tender when very young, and not until a plant is five or six years old can one judge accurately how hardy it is. All plants, then, should be given some protection during the first few years unless it happens to be a very mild winter.

DWARF RHO.

I imagine those suitable for the rock-garden are the most popular today, for they take up comparatively little room and are therefore ideal for small gardens. I give a dozen: all lovely plants and quite hardy.

AUGFAST (*augustinii* × *fastigiatum*). In some forms the deep blue of the best blue *R. augustinii* types has been passed on; the dark lavender-blue flowers come in May and cover the rounded bushes, which usually reach a height of 3 feet or more. A perfect little shrub for a narrow border.

BLUE BIRD (an *augustinii* hybrid). Flowers lavender blue, with a deep blotch. Late April. Very hardy. Suitable for edging a border. A single plant is lovely in the rockery.

BLUE TIT has smallish violet-blue flowers in umbels of three at the tips of the branches. An enchanting little shrub (about 2½ feet high) for the rock garden. Blooms in early May.

CARMEN (a *repens* hybrid). The colour of the parent is transmitted to the hybrids. A waxy, crimson, bell-shaped flower. Described as a carpeting shrublet. Blooms in April. Hardy but best in some shade.

ELIZABETH (another *repens* hybrid). Blood-red flowers, trumpet-shaped, 3 inches across, in clusters of five or six, blooming in April. A low, spreading shrub for the border. Partial shade if possible.

ELIZABETH HOBBIE has large scarlet flowers in April. A dwarf bush, which does best in partial shade; but like the others, completely hardy.

IMPEANUM is a low-spreading hybrid which is smothered with small cobalt-violet flowers during late April and May. Particularly beautiful when seen against grey stonework.

MYRTIFOLIUM (a *hirsutum* hybrid; the species is from the European Alps – one of the Alpine Roses). A delightful little Rhododendron, with pink-rose flowers in June.

OSTFRIESLAND, a new hybrid from Western Germany. A dwarf shrub, with crimson flowers, in April. Lovely against grey stone in the rockery; or it can be used for an edging. Partial shade, which is helpful during a frosty spell.

RACIL. This hybrid ultimately makes a moderate-sized bush, which is perhaps a little too big for a small rockery. It is an ideal plant, however, for a narrow border in a semi-shady spot. The blush-pink flowers come rather early – in late March and April.

SAPPHIRE ('Blue Tit' × *impeditum*). This hybrid resembles *R. impeditum*, a Chinese species, 6 to 18 inches high, of tufted habit; but it is more open; the stems are covered with light blue or lavender flowers in April.

TESSA ('Praecox' × *moupinense*). This hybrid makes a small bush up to 3 feet tall, which during a mild February is covered with purplish-pink flowers. To protect these, provide some overhead shade, or set the plant against a tallish rock facing north.

In the U.S.A. *R. schlippenbachii* (listed as a 'C' plant in Reuthe's catalogue) is perfectly hardy and is placed among the very hardy 'A' shrubs. Here, in Buckinghamshire, I have never seen this Rhododendron bloom satisfactorily.

AZALEAS (ENGLAND)

History and Description of the Azaleas

THE SO-CALLED Azaleas – species and hybrids – are deciduous or evergreen, and many are hardy and some tender. It is the hardy deciduous kinds that most gardeners are specially interested in. (There are different groups of these, viz. the GHENT HYBRIDS; the KNAP HILL AZALEAS – improved GHENT HYBRIDS; the MOLLIS HYBRIDS; the KURUMES; the INDIAN AZALEAS; and so on). These have proved very successful in many districts and are becoming increasingly popular with owners of small gardens; for they have a remarkable range of colour and take up little space (compared with the average hybrid Rhododendron). Some are almost as well known as the 'Pink Pearl' Rhododendron. The Knap Hill Azalea 'Mrs. Gomer Waterer' is a great favourite, with its semi-double cream and mauve-pink flowers. It likes semi-shade and is a lovely plant for edging a pathway through an open woodland. Partial shade is best for many of these deciduous Azaleas.

The KNAP HILL varieties were raised from crosses of the American species *Azalea calendulacea* (*Rhododendron calendulaceum*, described on page 35) and *Azalea sinensis* (*Rhododendron sinense*), a Chinese species. (Note the slight difference in the spelling of the specific epithets.)

Hybridizing of the so-called Azalea went on simultaneously with the hybridizing of the evergreen Rhododendrons. And the first Rhododendron hybrid known in this country was a natural one produced in a nursery in the Mile End Road in 1800, then called Mile End near London. The two plants, it is thought, were *R. ponticum* and *R.* (*Azalea*) *nudiflorum*, the pink 'Honeysuckle Azalea' from North America, which grew near *R. ponticum*. The hybrid was described as having large green leaves and pale purple flowers with wavy lobes; it was first named *R. ponticum* var. *deciduum*, but this was soon changed to *R. azaleoides*.

Later, various crosses were made between evergreen Rhododendron species and deciduous ones, known then, of course, as Azaleas. This group was classified as *Azaleodendrons*.

Some of these old plants (produced at the beginning of the nineteenth century) are still offered for sale by nurseries today.

The first mentioned, *R. azaleoides* (delightfully fragrant) may be had from most Rhododendron specialists. It often appears under the name of 'Odoratum'.

'Govenianum' is another, a cross between *R. nudiflorum* or *R. viscosum* (both from North America) and a hybrid between *R. ponticum* and *R. caucasicum* (both evergreen). This hybrid (which is quite expensive – 30s – a few years ago) has attractive evergreen leaves and sweetly-scented lavender-purple flowers in June.

As a race of garden shrubs the so-called *Azaleodendrons* are perhaps the least popular of the hybrids; they are not constitutionally so strong as many other kinds. On the whole they do best in drier, sandier soils than do the hybrids raised from the evergreen Rhododendron species and varieties.

[2]

The GHENT HYBRIDS are the oldest of the Azaleas we grow. They are the result of crossing some of the American species with the European yellow *R. luteum* (*Azalea pontica*); and a few included in this group are derived from *R. luteum* and the Japanese *R. molle*.

Many are delightfully fragrant, as the parents *R. viscosum* and *R. luteum* are; other good qualities they have inherited are vivid colour (from *R. calendulaceum*), and late flowering habit and extreme hardiness.

The first of these hybrids were raised in England about 1830; but the chief work was done at Ghent in Belgium; hence their name. It was not a professional gardener, however, who raised the plants but a baker (a Monsieur P. Mortier), who was a great plant enthusiast. The species he used were probably *R.R. calendulaceum*, *nudiflorum*, *viscosum* (North American); and *R. luteum* (European); later the best hybrids produced by these plants were used.

Verschaffelt, also of Ghent, purchased some of the finest and continued the work. Two other firms who became interested were van Houtte (Belgium) and Koster (Boskoop, Holland).

The following varieties are among the best.

'Aurea Grandiflora' has deep yellow flowers, with an orange blotch. One of the first raised in Britain (*R. luteum* × *R. molle*). Good scent and attractive autumn tints.

'Coccinea speciosa' was first marketed here in 1843. Thought to be a variety of *R. calendulaceum*. Brilliant orange-red honeysuckle-shaped flowers. Tallish growth.

'Fanny.' Rich crimson, touched with purple and yellow. Scarlet leaves in autumn.

'Gloria Mundi.' Bright orange with yellow blotch. Not so tall as some varieties. Good autumn tints.

'Nancy Waterer.' Deep yellow open flowers, sweetly scented.

'Narcissiflora.' Double, deep yellow flowers, with a rich scent. A compact grower; useful for limited spaces. Received an Award of Merit in 1954.

'Vulcan', a new plant, with deep red, scented flowers; not so tall as some.

These deciduous Ghent Azaleas are mostly late bloomers (the end of May or June); they are fragrant and make tallish, twiggy shrubs. Very lovely and some of the most reliable of the hybrid Azaleas. Perhaps not quite so striking as those whose flowers come before the leaves begin to form. But the Ghents are much safer – seldom if ever spoiled by frost.

Grow them in drifts in a woodland clearing, if you can; or set them at the back of a lawn facing the house, so that you can enjoy them from the windows of the living-room.

AN 16

[3]

The MOLLIS HYBRID AZALEAS are regarded as the most striking of all Azaleas as regards colour. And this is displayed to advantage, since the flowers come before the foliage. True, they are sometimes spoilt by frost; but if grown in a sheltered garden, where there are surrounding trees and shrubs, or screens of some sort, they should be safe. (Avoid planting in hollows, where the cold frosty air concentrates.)

These hybrids are named after one of the parents, viz. *R. molle* (a native of Japan and probably of China, too); the other parent is *R. japonicum*, a large-flowered Azalea, native of Central and Northern Japan, where it grows in open country.

It is for their glorious colours that the Mollis Azaleas are famous, and principally for their shades of orange and salmon. I don't know of any other flower which has such a glowing orange as the variety 'Spek's Orange'.

The first crosses were made towards the end of the nineteenth century. Good varieties were raised in England, America, Belgium and Holland, the majority and the finest coming from the Dutch nurseries of Anthony Koster of Boskoop.

The Mollis Azaleas are also suitable for forcing and make very attractive pot plants.

Few of the Molle plants have any scent and none is really a good autumn-colouring shrub.

'Babeuff' has bright salmon flowers, with orange shading. Plants about a foot high are lovely in a pot.

'Comte de Gomer' is a lovely clear pink. Charming massed on the fringe of a woodland. Introduced in 1879 by James Veitch and Sons.

'Dr. M. Oosthock.' Rich red-orange. A striking colour. Slight scent, but on some days scarcely perceptible.

'Dr. Reichenbach.' Salmon-orange. A seedling raised from the seeds collected from a mixed planting of Azalea Mollis varieties. Several similarly raised varieties cannot be distinguished from this plant. There is scarcely any difference, for example, between this variety and 'Emil Liebig' and 'T. J. Seidel.'

'Hortulanus Witte.' Bright orange-yellow. The yellow colouring is inherited from *R. molle*, which is not nearly so robust a plant as the other parent: *R. japonicum*; but the hybrid itself is taller than the average Molle Azalea.

'Koster's Brilliant Red.' Glowing orange-red. Some firms (Knap Hill Nurseries) send out good layered specimens and one can then be sure of the colour.

'Princess Juliana.' Pink edged rose, with a lemon-yellow ray.

On the whole, these Azaleas take up less room than the old Ghent varieties and are ideal for the small modern garden. It is a mistake to plant them in deep shade. They need some sun to ripen off the flowering wood. A position against a wall (which will protect them from severe frosts) is better than one under overhanging trees.

[4]

The AZALEA OCCIDENTALIS HYBRIDS are derived from the California species *R. occidentale* (from the regions west of the Rocky Mountains) and some earlier-flowering Mollis Hybrids. This species blooms in coastal districts (about the 15th of May); and in England is one of the hardiest of the species we grow. It arrived here in 1851 and later was used by Mr. Waterer of Knap Hill for producing some new hybrids. It was then sent to Holland, where Anthony Koster raised some very fine Azaleas from it and the Mollis plants.

The foliage of the Occidentalis varieties is not as brilliantly coloured in autumn as that of many other Azaleas; but the scent is delightful; and the flowers are large and last a reasonably long time. I recommend the following.

'Delicatissima.' Cream, yellow blotch. Buds are pink-tinged.

'Exquisite.' Cream flushed pink, with an orange blotch.

'Gloriosa,' White with pink shading. Sometimes blooms a second time (in the autumn) if the summer has been good.

'Irene Koster' is the strongest scented of all these hybrids and perhaps the best known. The rose-pink flowers come quite late.

'Superba.' Creamy-pink. A tall, strong-growing shrub.

'Westminster.' Pale pink delicate-looking flower; but a very hardy shrub.

These hybrids are fairly tall-growing plants, well-established specimens reaching a height of 5 or 6 feet. Some will grow twice as tall if they are given a little shade and a rich, leafy soil, and are grown in a warm, moist climate.

[5]

The KNAP HILL AZALEAS were raised by the Waterers at Knap Hill Nurseries (Surrey), the material used being the best of the hybrid groups given.

These KNAP HILL AZALEAS are prized by all Rhododendron-lovers and collectors as the most valuable of all the deciduous hybrids. They combine the finest qualities of the different groups which were produced by some of the world's most skilful hybridizers.

The flowers, with prominent stamens, are large, some measuring 4 or 5 inches across, and continue to bloom over a longish period. They stand up well on the branches and range in colour from white through creamy-yellow to the deepest reds and scarlets. They are scented and do well fully exposed or in partial shade – like the flowers of all Rhododendrons and Azaleas, they last longer in bloom if shaded from the hot afternoon sun.

Constitutionally, these hybrids are among the hardiest of all the Azaleas and make good, handsome shrubs up to 5 feet tall. The foliage is often an enchanting bronze all through the summer and becomes beautifully tinted during the autumn. It would be difficult, I think, to find any shrubs as ornamental as these Knap Hill Azaleas.

Further breeding was carried on by other nurseries; and so we have various sub-groups, such as the Goldsworth Group, developed by the Slococks of the Goldsworth Old Nursery, Woking, Surrey; the Exbury Group (raised by the late Lionel de Rothschild); and the Ilam Group (raised in Australia).

I could name dozens of varieties gardeners would like to possess; and selecting a few only is bound to be an invidious task. Many people's favourites, no doubt, will be omitted.

'Devon' is a 'winner', according to most collectors. ('Satan' is its other name.) It has scented, scarlet flowers which come late, i.e. June. Its glaucous foliage (lovely in spring), colours well in November.

'Gog.' Tall grower, with large tangerine-yellow flowers. Fine autumn tints. In bloom mid-May.

'Harvest Moon.' Large pale yellow flowers which come in late May. The best yellow, perhaps. Prefers part shade, Mid-May.

'Knap Hill White.' Pale pink which fades to white, when the flowers are fully open. Glaucous foliage. Mid-May.

'Lapwing' is a variety with creamy yellow flowers tinted with pink; they are sweetly scented and about the first to open. Early season.

'Persil.' Another white. Pure white flowers with a yellow blotch. Mid-May.

'Pink Delight.' Listed in every catalogue, apparently. Peach pink flowers, with a yellow eye. Mid-May.

'Seville.' Large flowers, well-placed on the branches. Orange. Delightful scent and a good autumn-tinting shrub. Mid-May.

'Whitethroat.' Pure shining white flowers. Light green foliage, with accords well with the white. Particularly beautiful in semi-shade. Scented. Magnificent autumn tints. Mid-May.

AZALEAS (ENGLAND)

[6]

The dwarf Evergreen Azaleas are regarded by many people as tender; in fact some think they can be grown only in pots indoors. Probably this misconception has arisen because all the florists' varieties (forced and grown in pots) are evergreen. But there are the hardy kinds like the KURUME HYBRIDS, which can be safely planted out of doors in most districts; three other hardy groups are the KAEMPFERII HYBRIDS; the MALVATICA × KAEMPFERII HYBRIDS; and the VUYKIANA HYBRIDS. Some of these shed a few of their leaves during an exceptionally cold winter, but they retain most of them; and the leaves colour beautifully.

By far the most popular of the hardy kinds are the KURUMES. Like many Rhododendrons and Azaleas, they are tender in their young state and need nursing till they reach maturity. During a very severe spell of cold, say, in January, the plant (or even several) may easily be covered with clotches. This will keep the frost and the cold out, the worst frosts causing bark-splitting and the consequent death of the plants.

It is unwise, though, to grow the Kurumes in too rich a soil, since this promotes long sappy growths which are most susceptible to frost injury.

These Azaleas are small-leaved plants, the leaves resembling those of the Box but colouring in the autumn. And the flowers come so thick on the stems that the foliage is often hidden completely: lovely mounds of small flowers, single, or hose-in-hose (semi-double). They have no scent, and range in colour through white and pink to the deepest crimsons and scarlet. There are no yellow varieties – though the variety 'Seikai' is white, with a very slight yellow flush.

The plants are derived from various Japanese species and forms which were originally found growing on Mount Kirishima, near Kurume, a town on the island of Kiushiu, about 800 miles southwest of Tokyo. Hence the name Kurume and the wider term 'Japanese Azaleas'.

A few are tender and may be grown in pots (though any may be cultivated in this way and actually forced into bloom for indoor decoration).

Again, in choosing varieties, we are up against an enormous list, and one can only make a few suggestions:

'Christmas Cheer.' Bright red. An early introduction. And it blooms in late April. The name seems inappropriate.

'Hinodegiri.' Listed as a 'fairly hardy' variety. Bright crimson. Blooms in early May. One of the Wilson '50 Kurumes'. (These were the best of many hundreds that Dr. E. H. Wilson, the collector, saw in Japan in 1914.)

'Hinomayo.' Exquisite glowing shell pink flowers which completely hide the leaves. There was many years ago a lovely specimen growing in the rockery at 'Greengates', near Henley, which belonged then to Lord Hambledon. A rather shady site for the plant; but I have seen it blooming there freely in May.

'Irohayama.' (Another of the '50': No. 8.) White margined with lavender. May. Called in England 'Dainty'. Fairly hardy.

'Kirin.' (No. 22.) Hardy. Deep rose shading to silver-rose.

One of the wild species from which these magnificent Azaleas are derived is *R. kaempferii* (two others are *R. obtusum* and *R. kiusuanum*). *R. kaempferii* was also crossed with a plant called 'Azalea Malvatica', which was imported to Holland from Japan; and these two produced a race of Azaleas, with flowers as lovely (though not so numerous) as those of the Kurumes. The Malvaticas are taller than the Kurumes; they reach a height of 5 or 6 feet; their evergreen leaves are not so persistent but they turn an attractive shade of red in the autumn.

Many specialists include this group of evergreen Azaleas in the Kaempferi Group, as they do the Vuykianas (named after the Dutch firm Vuyk Van Nes), these two being regarded as sub-races of the Kaempferii Race, in which this semi-evergreen Japanese species (*R. kaempferii*) is the important and leading influence.

The following short list includes some Kaempferii Hybrids (indicated by K); Malvatica × Kaempferii Hybrids (M × K); and Vuykiana Hybrids (V).

'Alice.' (M × K.) Salmon-red flowers. Like the other varieties of this Group, a very hardy plant; it does best in partial shade. Mid-May blooming.

'Betty.' (M × K.) A rich orange-pink. May.

'Bengal Fire.' (K.) (Said to be a hybrid between *R. kaempferii* and *R. oldhamii*, an orange-red species from Formosa.) Flame red flowers which come very late – July. A tall-growing shrub.

'Eddy.' (K.) Very similar to the above, though not quite so tall. July-flowering.

'Eva.' (M × K.) Rosy violet flowers – large in fine clusters.

'Jeanette.' (M × K.) Deep pink flowers in mid-May.

'John Cairns'. (M × K.) A very hardy, tall-growing red Azalea. The shade might be described as brick-red. Blooms in May. Received an Award of Merit in 1940.

'Palestrina.' (V.) Regarded by growers as the hardiest of all the Azaleas with 'Kaempferii blood' in them. Perhaps the loveliest of all Azalea flowers, in the right setting. They are pure white, with a pale green centre, which enhances their cold beauty. It should be massed on its own. Blooms in May.

'Queen Wilhelmina.' (V.) More straggly-growing than some varieties. Deep vermilion colour: most striking when seen in partial shade.

[7]

Finally there are the varieties of *R. indicum* (*Azalea indica*; also known as the Macrantha Azalea), a Japanese evergreen species (3 to 6 feet high in the wild – Southern Japan). Hundreds of its varieties were cultivated in Japan as long ago as the seventeenth century. The varieties we grow are hardy enough in warm, sheltered gardens, and flourish most luxuriantly in partial shade.

It is unfortunate that both the varieties of *R. indicum* and those of the Chinese species *R. simsii* have come to be known as 'Indian Azaleas'. Which should be called 'Indian'? The term is usually reserved now for the *R. simsii* Azaleas, which are genuinely tender and ideal for forcing in the hot-house – the true florists' pot-Azaleas. The varieties of *R. indicum*, although sometimes grown in pots, do not like the hot, forcing house and should be grown out of doors.

There are some very beautiful varieties of *R. indicum* obtainable; but one should be quite sure that one has a suitable place in the garden for them before ordering.

R. indicum var. *balsaminaeflorum* seldom reaches more than 12 inches in height and makes a neat little shrub for the rockery. It needs a lightish soil. Lovely salmon-red flowers in rosettes during June. Not an easy plant to establish in all gardens, however.

'Var. Hakatashiro.' Large ivory-white flowers.

'Var. Kokinshita.' Dwarf shrub, with rose-salmon flowers, opening in June and July.

'Var. Vida Brown.' Regarded as one of the best of the *indicum* Azaleas. The flowers come in mid-June; semi-double of a deep salmon colour.

These Azaleas are among the rarer evergreen hybrids, as are those raised in America, viz. the two Groups 'Glenn Dale' and the 'Gable'. In fact these American Azaleas are scarcely known in Britain. The 'Glenn Dale' Hybrids have been bred from various Japanese evergreen Azaleas (*R. kaempferii*, *R. mucronatum* and hybrids and varieties of *R. indicum* and the lovely Kurumes); the flowers are exceptionally large and the plants themselves are proving more hardy in the U.S.A. than the Kurumes.

In a handbook of this size the lists of plants recommended naturally has to be limited. Hundreds of many desirable garden varieties have been omitted; fortunately fuller lists will be found in the excellent catalogues published by our leading Rhododendron and Azalea specialists.

-D. BARTRUM
"RHODODENDRONS AND AZALEAS"
LONDON 1964

Selection for the amateur gardener

The following list is intended mainly as a guide for the beginner; the more experienced enthusiast will probably not be very satisfied with it, and will seek different, better types which are also not too difficult to obtain.

Usefulness in the garden is shown by stars, which are designed to make the choice easier for the beginner. The stars have in the main been awarded by British, American, Dutch and German nurserymen, and in some cases have been added to by the author.

The more stars, the more valuable is the plant in question.

*Good
**Very good
***Excellent

Hardiness: the degree of a plant's sensitivity to frost is marked with this sign: ∧. The more of these circumflexes, the more sensitive the plant is. Plants with ∧∧∧ after them are suitable only for the very mildest temperate regions. They are listed here because these mild areas are in fact the very places where so many keen gardeners live.

Entries followed by ∧∧ mean that these plants are generally hardy in milder parts of temperate regions, but they should be covered with twigs during particularly severe weather. In the colder parts these should always be protected in the winter.

One ∧ is given to those plants which will survive even in the colder parts provided they are given some protection in winter.

No ∧ at all indicates that the plant in question will normally survive the winter in any part without protection. Naturally, all indications of winter protection are intended only to serve as a guide.

Evergreen plants are marked with the sign #.

1. STANDARD RANGE OF THE DEUTSCHE RHODODENDRON GESELLSCHAFT (German Rhododendron Society) (all #)

Drawn up in 1954 by various German nurseries, etc. The following twenty varieties are hardy and able to bear periods of frost. They are all easily obtainable.

'Album Novum', white, light purple on opening *
'Catawbiense Album', white, pale pink on opening **
'Catawbiense Boursault', pale purple-violet ***
'Catawbiense Grandiflorum', pale purple-violet ***
'Catharine van Tol', ruby red *
'Charles Dickens', ruby red *
'Cunningham's White', white, very early **
'Directör E. Hjelm', purple-pink **
'Dr. H. C. Dresselhuys', dark ruby red ***
'Dr. V. H. Rutgers', Ruby red **
'Edward S. Rand', ruby red **
'Everestianum', pale purple-violet *
'Gomer Waterer', white, pink on opening **
'Lee's Dark Purple', dark purple-violet **
'Madame Carvalho', white with pale purple **
'Parsons Gloriosum', lilac pink *
'Purpureum Elegans', purple violet *
'Roseum Elegans', purple pink **
'Van der Hoop', dark ruby red **
'Van Weerden Poelman', dark ruby red **

2. THE SEIDEL RANGE (all #)

Particularly hardy specimens, selected by the Deutsche Rhododendron Gesellschaft; however, these are not frequently sold by nurseries.

'Alfred', lilac with green-yellow marks
'Allah', pale purple-pink
'Bibber', ruby red
'Bismarck', white, clear purple-pink on opening
'Dietrich', pale purple-red
'Eidam', white with pink
'Genoveva', white with yellow marks
'Gudrun', white with purple marks
'Hero', white with olive green marks
'Holbein', ruby red
'Hassan', carmine, large flowered ***
'Holger', pale purple-violet with green marks
'Homer', ruby red **
'Humboldt', pale purple-violet, dark marks
'Hymen', pale violet
'Leopold', dark violet
'Mexico', ruby red with dark fleck
'Oldewig', pale carmine pink
'Omega', pale ruby red
'Raphael', dark ruby red
'Scharnhorst', dark ruby red with darker marks
'Von Oheimb Woislowitz', pale purple pink

3. THE ENTHUSIAST'S COLLECTION, CHOSEN BY THE DEUTSCHE RHODODENDRON GESELLSCHAFT (all #)

These were also selected in 1954. They are for the most part large flowered, but less hardy than the two previous ranges. They will therefore be more suitable for enthusiasts living in milder areas. During a normal winter no protection is generally needed, but in particularly cold weather, e.g. below —15° C., and particularly when the sun is shining, bushes should be covered with twigs or with straw until the weather warms up a little.

'Adriaan Koster', pale yellow *
'America', dark ruby-red, late ***
'Antoon van Welie', pink with red-brown fleck *
'Britannia', dark scarlet, bell-shaped ***
'E. D. Godman', dark ruby-red *
'Goldworth Yellow', pale yellow, darker tones *
'Hugh Koster', dark red with darker fleck *
'Jacksonii', white, pink on opening, very early
'James Marshall Brooks', dark ruby-red, brown fleck
'Kate Waterer', pink with yellow-green fleck *
'Lady Annette de Trafford', pale pink, brown fleck, very late *
'Leopardi', white with brown fleck
'Louis Pasteur', white with pink rim *
'Madame Masson', white with yellow fleck *
'Mrs. P. den Ouden', dark ruby-red *
'Mrs. R. S. Holford', carmine red
'Pink Pearl', pale pink with purple tint ***
'Prof. Hugo de Vries', pale pink, red-brown marks *
'Purple Splendour', dark purple-violet **
'Van den Brocke', dark ruby red
'William Austin', dark ruby red with darker fleck
'Zuiderzee', pale yellow with darker fleck

4. SELECTION CHOSEN BY THE AUTHOR AND GROWN IN DORTMUND (all #)

White

'Mrs. Lindsay Smith', white, large-flowered, small red fleck ∧∧∧–∧∧
'Mother of Pearl', pale pink on opening, then white *∧
'Sappho', white with large black fleck *

Yellow

'Diane', creamy yellow, red brown fleck *∧

Pink

'Betty Wormald', dark pink with lighter tones *∧∧
'Cynthia', carmine pink, very hardy *
'N. N. Sherwood', pale pink, yellow marks *

Lilac

'Blue Peter', lavender with purple fleck **
'Fastuosum Plenum', lilac, half-filled *
'Lavender Girl', pale lilac, very large-flowered **∧
'Susan', blue-lilac, very large-flowered **∧

Violet-purple

'Old Port', dark violet red *

Red

'Kluis Sensation', scarlet red, dark fleck ***
'Lord Roberts', dark red, black fleck *
'Moser's Maroon', dark red, black fleck, very late *

5. LARGE-FLOWERED HARDY AZALEAS WORTHY OF RECOMMENDATION

A. *'Mollis' types*

Yellow to orange-yellow

'Adriaan Koster', best pure yellow variety ***
'Sunburst', dark yellow, large-flowered ***
'Bataaf Felix', dark yellow *
'Directeur Moerlands', dark yellow *
'Christopher Wren', orange yellow, large clusters of flowers ***
'General Eisenhower', orange-yellow, large-flowered **
'Hortulanus H. Witte', pale orange-yellow **
'Dr. A. Plesman', golden yellow, orange fleck, large-flowered **

Orange-yellow-salmon

'Salmon Queen', apricot yellow with salmon pink ***
'Lemonora', apricot yellow with pink, orange fleck **
'Frans van der Bom', salmon **
'Hugo Koster', dark salmon *
'Alice de Stuers', salmon, dark orange fleck **
'Apple Blossom', pure pink ***
'Samuel T. Coleridge', pale pink *
'Queen Emma', dark orange with salmon ***
'Spinoza', orange with pink tint **

Orange-red

'Polly Claessens', pure orange, large-flowered ***
'Spek's Orange', orange, late, wide growth, short **
'Winston Churchill', orange with red ***
'Orange Glow', orange with red **
'Hamlet', dark salmon with dark orange *
'W. F. Raiffeisen', pale orange-red *
'Dr. M. Oosthoek', dark orange-red ***
'Koster's Brilliant Red', orange-red *** (not always first class in colour)
'Saturnus', dark orange-red with red tint **
'Benelux', dark orange-red with red tint **
'Spek's Brilliant', orange-red **
'Franklin D. Roosevelt', orange-red, large-flowered **

Red

'Willem Hardijzer', dark-red with some orange ***
'Catharina Rinke', red, orange tint, dark red marks, very large-flowered, late ***
'Radiant', best dark red variety ***
'Dr. Jacobi', dark red with orange, smallish growth **
'Mrs. Peter Koster', dark red, smallish growth **
'Prominent', pale orange-red, large-flowered, strong growth **

Pink

'Suzanne Loef', dark reddish pink ** (noticeable improvement on the old variety 'Mathilde' *)

B. *Ghent or pontic azaleas*

Yellow

'Nancy Waterer', golden yellow ***
'Narcissiflora', sulphur yellow **
'Hollandia', orange yellow, very early *

Pink

'Corneille', pale pink, rosette-formed **
'Bouquet de Flore', pale pink, white striped, yellow fleck, late *
'Fanny' (= 'Pucella'), dark purple pink, small brown marks, very early and dense blooming **

Red

'Sang de Gentbrugge' is no longer recommended; Knap Hill varieties of 'Satan' are recommended instead
'Pallas', geranium red with orange fleck, early *
'Ignaea Nova', carmine red with yellow fleck, very late *

Orange

'Coccinea Speciosa', bright orange, richly flowering ***

White

'Daviesi', creamy white, yellow marks, blue-green foliage *

C. *'Rustica' varieties, double-flowered, low-growing*

'Aida', pale pink with lilac tones, double *
'Freya', salmon with yellow tint, double **
'Norma', pink with salmon, double **
'Phebe', sulphur yellow, double **
'Velasquez', creamy white with pale pink tint *

All Rustica varieties are particularly suitable for growing in the greenhouse.

D. *Occidentalis varieties; scented and fairly late*

'Exquisita', pale pink, orange-yellow fleck, scented, late **
'Irene Koster', pale pink with small yellow fleck *
'Magnifica', creamy yellow, pale pink later, with orange fleck **
'Pink Cloud', pink, large-flowered (better than 'Irene Koster') **

6. RECOMMENDED JAPANESE AZALEAS

White

'Adonis' (Kur.) *** fairly early, wide
'Annamaria' (Malv.) ** fairly late, dense
'Noordtiana' (mucr.) ** fairly early, wide, upright
'Palestrina' (Vuyk.) ** fairly early, upright

Pink

'Betty' (Malv.) pink, darker in the centre, early, upright **
'Blaauw's Pink' (Kur.) pale salmon, very early, upright **
'Chopin' (Vuyk), salmon, early, dense **
'Esmeralda' (Kur.), pink, early low growing *
'Favorite' (Kaempferi) deep pink, fringed, early, upright **
'Fedora' (Malv.), dark pink, fairly early, upright ***
'Helena' (Kur.), pink, early, low growing **
'Hinomayo' (Kur.), pale pink, early, wide *
'Johann Strauss' (Vuyk.), salmon darker in the centre, fairly early, wide *
'Kathleen' (Malv.), pink-red, fairly early, upright ***
'Little Beauty' (Amoena), pink, fringed, fairly early, wide **
'Matador' (Kur.), pink, fairly early, wide *
'Multiflorum' (Arends), dark pink, fairly early, wide **
'Sakata Red' (Kur.), pink, early, dense *
'Schubert' (Vuyk.) pale pink, fairly early, wide *
'Vuyk's Rosyred' (Vuyk.) 1 pink-red, late dense **
'Willy' (Malv.), pale pink, early, wide *

Salmon to orange

'Alive' (Malv.), salmon, fairly early, upright **
'Anny' (Malv.), orange-red, fairly early, upright **
'Kerspe' (Arendsii), pale salmon, fairly early, wide *
'Mikado' (Kaempferi), pale salmon, very late
'Orange Beauty' (Kaempferi), pale orange, very early, wide *
'Orange King' (Malv.), orange-red, fairly early, dense **
'Princess Juliana' (Vuyk.), orange, fairly early, wide **
'Salmon King' (Malv.), salmon, fairly early, wide **
'Sibelius' (Vuyk.), orange, fairly early, dense **
'Zampa' (Malv.), pale orange, fairly early, upright *

Red to carmine

'Addy Wery' (Kur.), dark vermilion with orange, fairly early, dense ***
'Aladdin' (Kur.), geranium red, early, upright ***
'Benigri' (Kur.), red, very early, dense
'Christmas Cheer' (Kur.), dark red, early, low growing **
'Hinodegiri' (Kur.), red, early, wide **
'Hino-scarlet (Kur.), scarlet, early, upright ***
'John Cairns' (Malv.), deep red, fairly early, dense ***
'Maxwelli' (pulchrum) carmine, fairly early, wide
'Prince Bernhard' (Vuyk), vermilion, fairly early, wide *
'Sunrise' (Kur.), dark red, early, upright *
'Vuyk's Scarlet' (Vuyk.), carmine, fairly early, dense ***

Purple to lilac

'Agger' (Arendsii), lilac, fairly early, wide *
'Amoena' (Amoena) purple-red, early, wide *
'Beethoven' (Vuyk.), lilac, wavy edges, fairly early, wide **
'Bigge' (Arendsii), purple-lilac, fairly early, upright *
'Gretchen' (Malv.), dark lilac, early, upright *
'Hatsugiri' (Amoena), purple, early, wide *
'Johann Sebastian Bach' (Vuyk.), purple-violet, fairly early upright *
'Lilac Time' (Malv.), lilac, fairly early, dense ***
'Mahler' (Vuyk.), dark lilac, late, wide and low-growing **
'Malvatica' (Malv.), lilac, early, dense *
'Mozart' (Malv.), rose lilac, early, dense *
'Purple Triumph' (Vuyk.), violet, fairly early, wide ***
R. yedoensis (= 'Yodogawa'), lilac, double, very early, upright **

EUROPE

7. RECOMMENDED WILD VARIETIES OF RHODODENDRON

The following choice has been made taking into account the varieties likely to be available.

Dwarf varieties, to a height of 50 cm./20 in. max.

Evergreen varieties

R. calostrotum, violet, April, 30 cm./12 in. ***
R. campylogynum var. *myrtilloides*, pink, cushion shaped, May **
R. forrestii var. *repens*, carmine red, cushion shaped, April–May ***
R. impeditum, purple-violet, April–May, semi-circular, 40 cm./16 in. ***
R. keleticum, purple-red, June, carpetlike ***
R. kotschyi, pink, May, seldom higher than 50 cm./20 in. **
R. protratum, purple to carmine, April–May, 30 cm./12 in. **
R. racemosum, whitish pink, March–April, hardly 50 cm./20 in. ***^^
R. radicans, purple violet, May, carpetlike ***
R. saluenense, purple-red, April–May, 40–50 cm./16–20 in. ***
R. scintillans, lilac blue, April–May, 50 cm./20 in. ***
R. williamsianum, pink, April, semi-circular, seldom over 50 cm./20 in. *

Deciduous varieties

R. camtschaticum, purple-violet, May, grasslike **

Low-growing varieties, 50–100 cm./20–40 in. high

Evergreen varieties

R. andenogynum, whitish pink, April, up to 1 m./3 ft. *
R. adenophorum, pink, April–May, up to 1 m./3 ft. *
R. campanulatum, lilac, April–May, up to 1 m./3 ft. **
R. camp. var. *aeruginosum*, as previously, but with blue-green foliage **
R. chryseum, yellow, April–May, up to 70 cm./28 in. **^
R. detronianum, pale pink, middle of April, up to 1 m./3 ft. *
R. ferrugineum, pink, May, 60–80 cm./24–32 in.
R. ferrugineum, var. *album*, white, May, 60–80 cm./24–32 in.
R. fulgens, blood red, March–April, up to 1 m./3 ft. ***^^^
R. glaucophyllum, pink, May, up to 1 m./3 ft. **^
R. haemaleum, carmine, May, up to 1 m./3 ft. ***^^
R. haematodes, dark red, May, to about 1 m./3 ft. ***^^
R. hippophaeoides, lilac pink, April, to about 1 m./3 ft., erect ***
R. hirsutum, pink, June, to 1 m./3 ft.
R. heliolepis, purple-pink, June, to about 1 m./3 ft. **^^
R. hirtipes, pinkish red, April, to 1 m./3 ft. *^
R. insigne, pale pink, May–June, to 1 m./3 ft. ***^^
R. lutescens, primula yellow, March–April ***^^
R. micranthum, white, May–June, to about 1 m./3 ft.
R. metternichii, pink, April–May, to about 1 m./3 ft. **
R. mucronatum, pure white, May, to about 1 m./3 ft. high and wide ***
R. orbiculare, carmine, April, to about 1 m./3 ft. ***
R. oreotrephes, lilac, May, to 1 m./3 ft. or higher ***^^
R. orthocladum, lilac, end of April, about 1 m./3 ft. *
R. przewalskii, pale pink, April–May, semi-circular, 1 m./3 ft.
R. russatum, violet, April–May, to 80 cm./32 in. ***
R. souliei, pinkish white, May, about 1 m./3 ft. ***^
R. yakusimanum, carmine and white, May, to 1 m./3 ft. ***

Deciduous varieties

R. atlanticum, pinkish white, scented, May, to 60 cm./24 in. ***
R. bakeri, orange, June–July, to 1 m./3 ft. or more **
R. calendulaceum, orange-red, not scented, June, to 1 m./3 ft. ***
R. canadense, purple-lilac, April, 30–70 cm./12–28 in. high *
R. dauricum, lilac, January–March, about 1 m./3 ft. ***
R. kaempferi, red, middle May, 1 m./3 ft. or higher ***
R. obtusum, bright red, May, hardly over 70 cm./28 in. ***

Medium height, 100–200 cm./40–80 in. high

Evergreen varieties

R. ambiguum, yellow with green, April–May, to 1·5 m./4½ ft. **
R. beesianum, pinkish white, April–May, to 2 m./6 ft. large leaved ***
R. brachycarpum, whitish, June–July, to 2 m./6 ft. **
R. caroliniamum, pale pink, small-flowered, May–June, to 1·5 m./4½ ft.
R. dauricum var. *sempervirens*, purple, February–March, 1·5 m./4½ ft. **
R. floribundum, lilac pink, April, to 2 m./6 ft. *^^
R. litiense, pale yellow, May, to 2 m./6 ft. ***^^
R. makinoi, pale pink, June, small leaved, 1–2 m./3–6 ft. **^
R. minus, purplish pink, May–June, small leaved, 1–2 m./3–6 ft. **
R. oreodoxa, pale pink, March, 2–2·5 m./6–7½ ft. ***^^
R. peregrinum, white and pink, March–May, large leaved, 2 m./6 ft. ***^^^
R. puralbum, pure white, May, to 2 m./6 ft. or even higher ***^^
R. rex, pink, April–May, large leaved, to 2 m./6 ft. ***^^
R. smirnowii, lilac pink, May–June, silver foliage, to 2 m./6 ft. *
R. taliense, creamy white with pink, May, to 1·5 m./4½ ft.
R. traillianum, white to pink, April–May, about 1 m./3 ft.
R. ungernii, pale pink, not till July, to 2 m./6 ft.
R. williamsianum-hybrids, white to red, April–May, 1–2 m./3–6 ft. *–**

Deciduous varieties

R. arborescens, white with pink, scented, May–June, 2 m./6 ft. or more ***
R. linearifolium var. *macrosepalum*, pink, April–May, to 2 m./6 ft. **
R. mucronulatum, purple pink, January–March, to 1·5 m./4½ ft. ***^^
R. nudiflorum, pale pink, scented, May, to 1 m./3 ft. **
R. luteum, golden yellow, strongly scented, to 2 m./6 ft. **
R. occidentale, white to pale pink, May–June, scented, to 2 m./6 ft. ***
R. oblongifolium, white, July, to 2 m./6 ft. *
R. pentaphyllum, purple pink, April–May, to 2 m./6 ft. ***^
R. roseum, pink, May, strongly scented, to 2 m./6 ft. ***
R. schlippenbachii, white with pink, April–May, 2 m./6 ft. ***^^
R. vaseyi, pale pink, April–May, to 2 m./6 ft. ***
R. viscosum, white, not until July, very strongly scented, 1·5 m./4½ ft. **

High, over 2 m./6 ft.

Evergreen varieties

R. argyrophyllum, pinkish red, April, 2–3 m./6–9 ft. ***
R. augustinii, purple to blue, April–May, to 3 m./9 ft. *–***^–^^^
R. calophytum, whitish pink, March–April, to 3 m./9 ft. **^–^^
R. catawbiense (although not in cultivation the forms 'Grandiflorum' and 'Boursault' are available) lilac blue, May, to 5 m./15 ft. ***
R. decorum, whitish pink, scented, March–May, 2–3 m./6–9 ft. ***^^
R. discolor, pale pink, June–beginning July, scented, 2–3 m./6–9 ft. ***^^
R. fortunei, pale pinkish white, scented, May, 2–3 m./6–9 ft. high and wide ***
R. ponticum, lilac blue, July, almost star-shaped, 3–5 m./9–15 ft. *
R. rubiginosum, lilac pink, April–May, to 3 m./9 ft. ***
R. sutchuenense, pink, February–March, to 3 m./9 ft. ***^^
R. thomsonii, blood red, April, to 3 m./9 ft. (or more?) ***^^^
R. triflorum, pale yellow with green, May–June, to 2 m./6 ft. **
R. vellereum, white to pink, April, to 2 m./6 ft. high and wide *^^
R. vernicosum, white to pink, May, to 2 m./6 ft. high and wide ***^^
R. wallichii, lilac, April, 2–3 m./6–9 ft. *^^^
R. wardii, yellow, May, 2–3 m./6–9 ft. high and wide ***^–^^^
R. wightii, pale yellow, April–May, to 3 m./9 ft. *^^^
R. yunnanense, pink to white, May, to 3 m./9 ft. high ***^^

Deciduous varieties

R. albrechtii, purple red, April–May, 2 m./6 ft. or higher ***^^
R. reticulatum, purple pink, April–May, to 2 m./6 ft. ***

9. RHODODENDRONS WITH SCENTED LEAVES AND FLOWERS

Chief among these are the series Anthopogon, Cinnabarinum, Glaucophyllum, Heliolepis, Lapponicum, Saluenense and Triflorum, whose leaves, when touched, emit a strong, pleasantly aromatic smell which is discernible on the hands several hours after touching the plant. Indoors their scent is perhaps too oppressive, and for this reason it is best not to cut the flowers for indoor use.

(a) *Wild varieties with strongly aromatic foliage*

R. ambiguum
R. augustinii
R. calostrotum
R. chryseum
R. glaucophyllum
R. heliolepis
R. hippophaeoides
R. impeditum
R. keleticum
R. radicans
R. rigidum
R. rubiginosum
R. russatum
R. saluenense
R. scintillans
R. taliense
R. traillianum
R. triflorum

(b) *A few low-growing garden varieties with aromatic leaves*

'Bluebird' (*R. augustinii* × *R. intricatum*) violet
'Blue Diamond' (*R. augustinii* × 'Intifrast') blue
'Blue Tit' (*R. augustinii* × *R. impeditum*) blue
'Pink Drift' (*R. calostrotum* × *R. scintillans*) magenta
'Sapphire' ('Blue Tit' × *R. impeditum*) pale blue

(c) *Hardy evergreen varieties with scented flowers*

The most strongly scented varieties of rhododendron are not hardy enough to live out in the open in our climate, since they originate for the most part in the milder areas of the Himalayas. On the other hand, they offer a marvellous spectacle in the greenhouse (see page 44). The only varieties which are really 'successfully scented' in this country are those in the Fortunei series, namely:

R. calophytum
R. decorum
R. discolor
R. fortunei
R. vernicosum

To these can also be added the hybrids: 'Sir Charles Butler', pale pinkish-white; 'Mrs. A. T. de la Mare', white; 'Naomi', yellowish white with pink tint.

Further, the 'Azaleodendrons' can be included here: 'Fragrans' (*catawbiense* × *viscosum*), lilac with white, 'Govenianum' [(*catawb.* × *pont.*) × azalea] lilac-pink.

(d) *Hardy deciduous varieties with scented flowers*

With the exception of *R. luteum*, all the following mentioned varieties stem from North America. The flowers are for the most part small, but appear in great profusion. Except for the golden yellow European variety, all scented azaleas are either white or pink in colour, never brilliant red or orange.

R. arborescens, white
R. atlanticum, whitish-pink
R. luteum, golden yellow
R. nudiflorum, pink
R. oblongifolium, white
R. occidentale, white
R. roseum, pink
R. viscosum, white

EUROPE

10. RHODODENDRONS WITH ORNAMENTAL FOLIAGE

R. arizelum, leaves 25 cm./10 in. long, downy brown underleaves
R. beanianum, leaves 10 cm./4 in., downy brown underleaves
R. calophytum, leaves over 30 cm./12 in. long
R. campanulatum, small leaves, deep reddish brown underneath
R. campanulatum var. *aeruginosum*, young leaves verdigris coloured (see Plate 11, *4*)
R. cinnabarinum, young and fully grown leaves strikingly blue-green to grey-green
R. concatenans, young leaves blue-green, purple underneath
R. falconeri, leaves 30 cm./12 in. long and 10 cm./4 in. wide, rust brown underneath
R. fictolacteum, variable leaf size, up to 30 cm./12 in. long and 10 cm./4 in. wide, rust brown underneath
R. fulvum, young leaves downy grey on opening
R. giganteum, leaves to 40 cm./16 in., with scarlet top leaves (see Colour Plate 5, *3*)
R. grande, leaves 25–30 cm./10–12 in. long and to 10 cm./4 in. wide, shining dark green above, silvery white beneath
R. insigne, medium-sized leaves, pointed, silver underneath (see Plate 6, *1*)
R. lepidostylum, young leaves remain a glorious blue-green colour for some time
R. macabeanum, leaves 30 cm./12 in. long and 12 cm./5 in. wide, deep green above, downy silver beneath
R. nuttallii, young leaves reddish violet (see Colour Plate 5, *5*)
R. orbiculare, leaves regularly heart-shaped
R. orcotrephes, young shoots reddish
R. lutescens, young leaves bronze coloured
R. rex, leaves almost 30 cm./12 in. long and 10 cm./4 in. wide, deep green and shining above, downy silver-green beneath (see Plate 8, *5*)
R. sinogrande, leaves 70–80 cm./28–32 in. long, the largest of the entire family, extremely shiny and veined on top, silvery grey beneath (see Plate 8, *4*)
R. smirnowii, young leaves and shoots silvery white
R. thomsonii, young leaves blue-green; stems with smooth rolls of bark (see Plate 6, *5*)
R. williamsianum, young shoots copper red. (Some of Hobbie's *R. williamsianum* hybrids have orange, salmon or brown shoots) (see Colour Plate 5, *2*)
R. yakusimanum, young shoots dense, downy silver coloured

11. HARDY VARIETIES FOR PARTICULARLY COLD AREAS

'America', dark red, strong growth, fairly late ***
R. catawbiense 'Boursault', lilac, fairly late ***
R. catawbiense 'Grandiflorum', fairly late, lilac ***
'Dr. H. C. Dresselhuys', red, late high growing ***
'Hassan', carmine, large flowered, early ***
'Nova Zembla', red, late ***
'Van Weerden Peelman', red, fairly late ***
'Caractacus', lilac red, late **
R. catawbiense 'Album' white with lilac tint, late **
'Cunningham's White', white, yellow brown mark, very early **
'Dr. V. H. Rutgers', dark red, fringed, average **
'Duke of York', pink, brown fleck, late **
'Edward S. Rand', red, dense growth **
'Gomer Waterer', white with lilac tint **
'Mme Carvalho', white yellow-green marks **
'Parsons Gloriosum', pale lilac pink, late **
'Van der Hoop', dark carmine pink, late **
'Album Elegans', pale lilac white, small growth, late *
'Album Novum', white with lilac tint, average *
'Burgemeester Aarts', red, early, high growth *
'Catharine van Tol', carmine pink, fairly late, dense *
'Charles Dickens', red, fairly early *
'Everestianum', lilac pink, bronze fleck, fringed, average *
'F. D. Godman', dark magenta, average *
'Giganteum', bright red, particularly early *
'Ignatius Sargent', pale red, late *
'Mrs. P. den Ouden', dark red, late, very dense *
'Parsons Grandiflorum', dark lilac pink, average *
'Purpureum Elegans', dark violet, late *
'Roseum Elegans', pinkish lilac, average *

Time	*Blue to violet*	*Lilac to lilac-pink*	*Red tones*	*Pink*	*White or pale tones*	*Yellow tones*
Very early (before 1 May)		praecox	Nobleanum Unknown Warrior	Prince Camille de Rohan Ronsdorfer Early-flowering	Jacksonii	Canary Diane
			Giganteum			
Early (1st–10th May)	Blue Peter Old Port Susan	Progrès	Rubescens Chev. Félix de Sauvage Cynthia	Mrs. G. W. Leak N. N. Sherwood	Boule de Neige Cunningham's White	Adriaan Koster Zuiderzee Harvest Moon
Average (10th–25th May)	Lavender Girl Purple Splendour Purpureum Grandiflorum	*catawb.* Boursault *catawb.* Grandiflorum Everestianum Roseum Elegans	America Britannia C. B. van Nes Charles Dickens Dr. H. C. Dresselhuys Dr. V. H. Rutgers Edward S. Rand F. D. Godman Hugh Koster Mrs. P. den Ouden Mme de Bruin William Austin	Betty Wormald Catharine van Tol Direktör E. Hjelm Marinus Koster Mrs. E. C. Stirling Pink Pearl Prof. Hugo de Vries	Album Novum Mrs. A. T. de la Mare Mrs. Lindsay Mother of Pearl	China Goldsworth Yellow Koster's Cream Souvenir of W.C. Slocock
Late (25th May–5th June)	Lees Dark Purple Purpureum Elegans Blue Ensign Fastuosum Plenum Marchioness of Lansdowne	Caractacus Roseum Superbum	James Marshall Brooks Louis Pasteur van den Broeke van der Hoop van Weerden Poelman John Walter Kluis Sensation Lord Roberts Nova Zembla El Alamein Prometheus General Eisenhower	Antoon van Welie Duke of York Chintz Duchess of Teck Kate Waterer	Catawbiense Album Delicatissimum Gomer Waterer Mme Carvalho Mme Masson Sappho	Goldsworth Orange
Very late (after 5th June)		Parsons Gloriosum	Moser's Maroon Essex Scarlet	Ponticum Roseum Lady Annette de Trafford		Naomi

It is neither necessary nor possible to list all the wild and garden varieties of rhododendrons mentioned in this book in the order in which they flower. Instead, we are confining ourselves to the most important among them; these are listed according to their colour and flowering period.

The chief flowering period in Europe is the month of May. Anything blooming in April or even earlier is therefore regarded as early; anything blooming after 20th May and up to July is listed as late-flowering.

"RHODODENDRONS" - GERD KRUSSMAN 1970

AL 22

Almost all of the old standard hybrids offered by nurserymen grow too large for modern one-story homes. In a few years they cover windows, encroach on neighboring plants and unbalance the entire foundation planting by the preponderance of their size and strong character. It is the newer hybrids, those of restrained growth and moderate size foliage, and the dwarfer species, which are really suitable for this purpose.

Species

Here are a few suggestions among the species suitable for foundation planting of modern single-storey houses:

NORTHEASTERN UNITED STATES	
carolinianum	pink
racemosum	pink
mucronulatum	violet-pink
micranthum	white
keiskei	yellow
hippophaeoides	lilac
fastigiatum	purple-blue

Hybrids

The following hybrids are recommended for foundation planting as appropriate in stature and foliage and superior in quality.

NORTHEASTERN UNITED STATES	
PIONEER	pink
WINDBEAM	pale pink
BRANDYWINE	pale pink
CONEMAUGH	rose-pink
CONESTOGA	rose-pink
CONEWAGO	rose-pink
WYANOKIE	white
CHESAPEAKE	white
MONTCHANIN	white
HOCKESSIN	white
RAMAPO	violet
LENAPE	pale yellow

The Best of the Dwarfs

These species are especially valued for their fine performances in the rock garden and among them they offer three to four months of bloom:

SPECIES	HEIGHT	FLOWER COLOR	SEASON OF BLOOM	HARDINESS RATING AMERICAN	HARDINESS RATING BRITISH
campylogynum var. *myrtilloides*	8″	pink	May	H-2	A
chryseum	18″	yellow	April–May	H-2	A
*fastigiatum**	24″	purplish-blue	April-May	H-2	A
flavidum	30″	pale yellow	March	H-2	A
impeditum	18″	purplish-blue	April	H-2	A
intricatum	24″	mauve	April	H-2	A
keleticum	10″	rosy purple	June	H-2	A
microleucum	18″	white	April	H-2	A
*mucronulatum**	60″	rose	February	H-2	B
racemosum	20″	pink	April	H-2	A
russatum	36″	dark blue	April	H-2	A

SPECIES	HEIGHT	FLOWER COLOR	SEASON OF BLOOM	HARDINESS RATING AMERICAN	HARDINESS RATING BRITISH
fastigiatum (dwarf form)	10″	purplish blue	April–May	H-2	A
impeditum	18″	purplish blue	April	H-2	A
keiskei (dwarf form)	24″	lemon yellow	April	H-2	A

THE RATINGS

In the following descriptions the species are rated for freedom of bloom, ease of cultivation, quality and hardiness. The first given rating, freedom of bloom, is in a sequence of 1 to 3 in order of decreasing floriferous character, and each such rating was determined in consultation with experts in this country and in England for the *average* of that species. There may be exceptions. For example, there is in Cairnryan, Scotland, a single specimen of *R. sinogrande* which is extraordinarily free-flowering, probably the only such example in cultivation of this normally shy-flowering species.

The second rating, ease of cultivation, is also an unofficial one devised by the author with the advice of specialists, from 1 to 3 in order of decreasing adaptability to ordinary garden conditions.

The quality ratings are those officially assigned by the American Rhododendron Society (from x to xxxx in order of increasing value); or by the Royal Horticultural Society of England (from * to **** in order of increasing quality). The American ratings are given for the species which have been rated in the United States. Some species, too new to cultivation in this country to be widely distributed, are still unrated here and in such cases the British rating is given. The same is true for the hardiness ratings which follow: the American system is used wherever the American Rhododendron Society has assigned symbols to indicate the hardiness of the species. A few sorts are not yet rated in the United States and in such cases only the British symbols appear. These ratings, American and British, are to be interpreted as follows:

AMERICAN RATINGS	APPLICATION
H-1	Hardy to 25 below zero F. 'These should be hardy in southern New York and New England.'
H-2	Hardy to −15° F.
H-3	Hardy to −5° F. 'These should be fairly hardy in southern Long Island and around Philadelphia.'
H-4	Hardy to +5° F.
H-5	Hardy to +15° F. 'These should be hardy during most winters in the Portland and Seattle areas.'
H-6	Hardy to +25° F. 'Hardy in Pacific Northwest coastal gardens and in sheltered areas elsewhere in the region.'
H-7	Hardy to +32° F.

EQUIVALENT BRITISH RATING	APPLICATION
A	Hardy anywhere in the British Isles with full exposure.
B	Hardy anywhere in the British Isles but requires some shade for best results.
C	Hardy along the seaboard and in sheltered inland gardens.
D	Hardy in south and west and in sheltered gardens inland.
E	Requires protection in even the most sheltered gardens.
F	Usually a greenhouse plant.

'Hardiness' means resistance to winter cold alone. Many Asian Rhododendrons which are hardy to Philadelphia and even farther north cannot endure the heat and low humidity of summers in the eastern United States. Hardiness is determined also by the duration of cold as well as the degree. In the eastern United States tolerance of cold is not necessarily a uniform attribute throughout all of the forms of the Oriental species. Specialists have isolated hardy forms and strains of Rhododendron species which are not normally satisfactory in the cold northeastern part of the country. By allowing the rigors of the climate to take their toll of large numbers of seedlings, these nurserymen have secured from the survivors Rhododendrons which are considerably hardier than the average of the species. By using these selected plants of exceptional hardiness as parents, additional generations of Rhododendrons with unusual resistance to cold have been secured.

Further than that, the seeds sent back by the several collecting expeditions into the wild interior of Asia have varied considerably in their hardiness. For example, the form of *R. racemosum* sent back by the Forrest expedition as produced from seeds under lot #19404 is hardy at Philadelphia; the form introduced under #56363 by the Rock expedition is hopelessly tender.

Finally, some specialists have isolated single hardy plants from tender species. By propagating such hardy individuals from cuttings their floral assets combined with their exceptional resistance to cold have been made available to the gardening public.

FOR TERRE HAUTE

AN 24

RHODODENDRON SPECIES HARDY IN THE NORTHEASTERN UNITED STATES

Where the list of hardy Rhododendrons is sharply restricted, as it is in the northeastern United States, it seems fair to evaluate the quality of those few satisfactory in the climate on a different basis than is used for the hundreds of fine species available in mild climates. I have done this below in the seventh column, from one # to four #### in order of increasing quality. For quick convenience, I have also provided in the sixth column my own hardiness ratings showing exactly how far north these Rhododendrons are satisfactory as follows:

IH—Ironclad Hardiness, to about 30° below zero F.
BH—Hardy to Boston.
NH—Hardy to New York City.
PH—Hardy to Philadelphia.

SPECIES	HEIGHT	SEASON OF BLOOM	FLOWER COLOR	LEAF SIZE	AUTHOR'S HARDINESS RATING	AUTHOR'S QUALITY RATING	REMARKS
adenopodum	6′	early May	pale rose	6″×1½″	BH	####	Good habit
brachycarpum	9′	June	cream to pink	5″×2¼″	IH	##	Dense growth
~~*campanulatum*~~	~~9′~~	~~April~~	~~white to rosy purple~~	~~4½″×2″~~	~~NH~~	~~###~~	~~Needs shelter~~
carolinianum	7′	mid May	white to mauve	3″×1¼″	IH	####	Deserves wider use
catawbiense	9′	late May	white, red, magenta	4½″×1½″	IH	####	Stands exposure
~~*caucasicum*~~	~~2′~~	~~May~~	~~white, yellowish, rose~~	~~3″×1¼″~~	~~NH~~	~~#~~	~~True species rare~~
chapmanii	6′	May	pale pink to rose	2″×1″	BH	###	Heat resistant
dauricum	6′	March–April	lavender-pink	1″×½″	IH	###	Rare true species is a gem
~~*degronianum*~~	~~4′~~	~~May~~	~~pale pink to rose~~	~~5″×1½″~~	~~NH~~	~~###~~	~~Dense growth~~
~~*discolor*~~	~~15′~~	~~early July~~	~~pale pink to white~~	~~7″×2¼″~~	~~NH~~	~~####~~	~~Superb where hardy~~
~~*fargesii*~~	~~10′~~	~~April~~	~~white to rose~~	~~3″×1½″~~	~~NH~~	~~###~~	~~Floriferous~~
fastigiatum	3′	April–May	lilac	⅛″×$\frac{3}{16}$″	BH	##	Give shelter, moisture, exposure
fortunei	15′	May	pale pink to white	7″×3″	BH	####	Very fine
hippophaeoides	4′	April	pale lilac to rose	1″×½″	BH	##	Easiest of the dwarf alpines
~~*keiskei*~~	~~8′~~	~~April~~	~~pale yellow~~	~~2¼″×1″~~	~~NH~~	~~##~~	~~Only hardy yellow flowered species~~
~~*longesquamatum*~~	~~8′~~	~~May~~	~~pink~~	~~4½″×1½″~~	~~NH~~	~~###~~	~~Rugged appearance~~
~~*makinoi*~~	~~5′~~	~~early June~~	~~white to rose~~	~~5″×⅛″~~	~~NH~~	~~###~~	~~Exotic appearance~~
maximum	15′	July	pink, white, red	7″×2½″	IH	#	Coarse texture—for large backgrounds
~~*metternichii*~~	~~5′~~	~~April~~	~~white to rose~~	~~5″×1¼″~~	~~NH~~	~~###~~	~~Seven-lobed flowers~~
micranthum	5′	early June	white	1½″×⅜″	IH	#	Spirea appearance
minus	15′	June	rose-pink	2½″×1″	IH	##	Large native
mucronulatum	8′	March–April	lavender-pink	2½″×1″	IH	###	Buy most evergreen form
~~*oreodoxa* forma *haematocheilum*~~	~~12′~~	~~early April~~	~~white to rose~~	~~3¾″×1¾″~~	~~NH~~	~~##~~	~~Lanky at maturity~~
racemosum	1½″	April	pink	1½″×¾″	BH	####	Many uses
~~*scintillans*~~	~~3′~~	~~April~~	~~lavender-blue~~	~~⅝″×¼″~~	~~NH~~	~~##~~	~~Somewhat difficult~~
smirnowii	7′	early June	rose	5″×1½″	IH	###	Good foliage
sutchuenense	15′	March–April	lavender-pink	5″×2″	BH	###	Early flowers need protected site
~~*ungernii*~~	~~7′~~	~~late July~~	~~pale pink to white~~	~~6½″×2¾″~~	~~PH~~	~~##~~	~~Handsome leaves~~
yakusimanum	4′	May	rose to white	1⅛″×3½″	BH	####	Perfect in form and flower

QUALITY RATINGS

The American Rhododendron Society assigns quality ratings of x to xxxx in order of increasing ornamental value to Rhododendrons distributed widely enough to be rated by a sufficient number of growers in their surveys. If a hybrid merits no quality commendation whatever it is assigned a rating of "o". The omission of a rating means only that the unrated hybrid has not been grown by enough specialists to form an accurate composite judgment of its quality.

Since different clones with the same group names were imported from Great Britain to the United States and were often not further identified, the American Rhododendron Society has been obliged to assign some of its ratings to hybrid groups rather than to clones and it specifies that such ratings apply only "to the best selections of the group. In such cases it is prudent to consider the rating applicable to clones in the group which have been given awards or have been otherwise distinguished by the addition of identifying clone names. Specialist-nurserymen have re-imported by their distinguishing clone names the best out of most of the prominent hybrid groups and so list them in their catalogs.

Under the British system, the hybrid listed without any quality rating may be either unworthy of even the lowest merit status or it may mean only that it is too new or of insufficient interest to be evaluated by the committee which determines such matters. The British quality ratings are * to **** in order of increasing ornamental value.

HARDINESS RATINGS

The American and British hardiness ratings are given below in all cases where either have been assigned. The American ratings refer only to resistance to cold, but a note is required here that some hybrids which are hardy to Philadelphia and northward cannot endure the heat and atmospheric aridity of eastern summers. It should also be noted that hardiness for a rare, brief period of lower temperatures in the Pacific Northwest does not at all indicate equal cold resistance at the same temperatures under eastern conditions. The British ratings are modified by a statement that a specified amount of shelter is needed to warrant the grade given for the more tender hybrids. The two rating systems compare approximately as follows:

American Ratings	Application	British Ratings
H-1	Hardy to 25° below zero F. "These should be hardy in southern New York and southern New England." (Author's note: some hybrids with this rating are somewhat more tolerant of cold than this statement indicates.)	
H-2	Hardy to -15° F.	A
H-3	Hardy to -5° F. "These should be fairly hardy in southern Long Island and around Philadelphia."	B
H-4	Hardy to +5° F.	C
H-5	Hardy to +15° F. "These should be hardy during most winters in the Portland and Seattle areas."	D
H-6	Hardy to +25° F. "Hardy close to the coast in the Pacific Northwest and in sheltered areas elsewhere in western Washington and Oregon."	E
H-7	Hardy to +32° F.	F

The American hardiness ratings are too new to be completely accurate, having been revised but once since they were assigned following the initial survey of growers. In any case, local conditions vary so much that these ratings will never be a subject of complete agreement. 'Everestianum', for example, which is universally regarded in the East as being in a group representing the highest standard of ironclad hardiness, bears a rating of H-2. By and large, however, the American ratings have proved to be a reliable guide to hardiness. Not so the British ratings for the climatic conditions of the United States. They have been useful as general indicators but there are too many conspicuous exceptions among hybrids which have been either a good deal more tender or a good deal hardier in this country than their British ratings indicate, and the range of hardiness in American gardens among the many which are rated "A" seems to be disconcertingly wide.

The Best of the Ironclad Group

The following clones have proved their worth for wide cultivation in the severe climate of the northeastern United States. From Philadelphia northward they are the standard hybrids of commerce and they are also extremely valuable south of the Mason and Dixon line for their ability to tolerate exposure and summer heat as well as winter cold. The superior sorts are ranked in the order of their quality, the other groups alphabetically:

RED

Superior

NOVA ZEMBLA	the best of this class
AMERICA	purest color; poor habit in youth; splits under heavy snow load
CHARLES DICKENS	difficult to propagate; slow in growth
ABE LINCOLN	difficult to propagate; color deficient
KETTLEDRUM	color varies according to location and season; scanty foliage; flowers poorly held in truss

Others

AMPHION	less hardy than those above
ATROSANGUINEUM	two hybrids by this name, one quite satisfactory
CARACTACUS	squalid color; good plant habit
CHARLES BAGLEY	good color, poor plant habit
DR H. C. DRESSELHUYS	poor color; dull foliage subject to winter injury; less hardy; grows rapidly
DR H. V. LOVINK	less hardy
DR V. H. RUTGERS	good plant habit; not ironclad in hardiness
EDWARD S. RAND	slightly less hardy
F. D. GODMAN	less hardy
GIGANTEUM	less hardy
H. W. SARGENT	slightly less hardy
MICHAEL WATERER	less hardy
MRS P. DEN OUDEN	less hardy
PROF. F. BETTEX	less hardy
VAN DEN BROEKE	less hardy
VAN WEERDEN POELMAN	less hardy

PINK

Superior

MRS C. S. SARGENT	deep reddish-rose; many specialists consider it the finest of all ironclad hybrids
ROSEUM ELEGANS	lavender-pink; fine habit; vigorous and adaptable; eight different hybrids in the trade under this name, seven of them inferior to the original; sometimes offered as 'Pink Roseum'
LADY ARMSTRONG	clear pink with paler center
EVERESTIANUM	lavender-rose, ruffled flowers

Others

CATHERINE VAN TOL	carmine-rose; less hardy
ENGLISH ROSEUM	inferior to the original, authentic 'Roseum elegans'
FASTUOSUM PLENUM	faded mauve, semi-double; less hardy (synonym: 'Fastuosum flore pleno')

F. L. Ames	rosy pink; less hardy
General Grant	rose
Henrietta Sargent	rose-pink; hardy; more compact than 'Mrs C. S. Sargent'
Ignatius Sargent	rose; hardy
Parsons grandiflorum	purplish rose, small flowers; hardy
Parsons gloriosum	lavender pink; hardy
President Lincoln	lavender pink
Roseum superbum	inferior to authentic original 'Roseum elegans'
Van der Hoop	dark rose; less hardy

WHITE

Superior

Catawbiense album	easily the best mid-season white
Boule de Neige	early, compact, susceptible to Lace Wing Fly in full exposure
Album elegans	late

Others

Album grandiflorum	large plant
Candidissimum	faint lavender flush; less hardy
Delicatissimum	faint pink flush; not free flowering
Gomer Waterer	faint blush; less hardy
Madame Carvalho	less hardy
Madame Masson	less hardy

LILAC

'Catawbiense Boursault' and 'Catawbiense Grandiflorum' are two Rhododendron clones with lilac-colored flowers which are sometimes offered by nurseries. They are not admired by specialists but their color is sufficiently distinct to place them in a separate group.

PURPLE

There is no Rhododendron hybrid of ironclad hardiness with dark purple flowers of first-class quality. In all of them the color is deficient in both purity and intensity. 'Purpureum Grandiflorum' is the best of those available. 'Purpureum Elegans' is equally hardy but it is not quite so desirable in other respects. 'Lee's Dark Purple' offers little improvement and a considerable sacrifice in hardiness. The standard of quality in this color is the superb 'Purple Splendour' with its flowers of deep, true royal purple. Unhappily, climates which do not exceed in severity that of Boston or the Lake Erie shore represent the extreme limit of its usefulness. It is a perennial best seller wherever it is hardy.

'Sefton' has large flowers of dark reddish plum late in the season. It is a distinct and decorative garden hybrid which has never been injured by repeated exposure to 25° below zero F. in my trial grounds. I regard it as a handsome and valuable Rhododendron for cold climates. 'Old Port' is a deep purplish red which is much less hardy.

'Cunningham's White'

'Cunningham's White' is an attractive early flowering Rhododendron with a faultless plant habit which is hardy along Lake Erie, at Boston, and in similar climates.

This hybrid originated about 1830 in the Comely Bank Nurseries of Edinburgh, Scotland, where it was thought to be a seedling of *ponticum* var. *album* crossed with *caucasicum*. It has white flowers with a greenish-yellow blotch. The leaves are without indumentum. Many authors (e.g. Bowers, *et al.*) have incorrectly considered this to be identical with 'Cunninghami', but the latter was bred by Cunningham in 1850 from *maximum* × *arboreum* var. *cinnamomeum* and described by the well-known nineteenth-century botanist, T. Moore. *R. Cunninghami* had white flowers with purple spots, not a greenish-yellow blotch, and it had a brownish indumentum beneath the leaves. It is no longer in cultivation.

This confusion between 'Cunningham's White' and 'Cunninghami' has puzzled many a nurseryman and breeder, unable to account for the hardiness of the former from the parentage of the latter. 'Cunningham's White' is reputed to be tolerant of alkaline soil, so much so that it is said to grow in districts where other hybrids perish. In my trial grounds the flowers partially open in the fall so that the remainder in the trusses are destroyed by winter cold. The hardier 'Boule de Neige' blooms a little later than 'Cunningham's White' but it is similarly compact in habit, and more reliable in its floral display.

The Parsons Hybrids

From about 1875 to 1890 a series of Rhododendron hybrids was produced by J. R. Trumpy at Kissena Nurseries in Flushing, Long Island, which subsequently came to be known as the Parsons hybrids. The following achieved the widest distribution:

Anna Parsons	Kissena
Bertha Parsons	President Lincoln
Flushing	Samuel B. Parsons
J. R. Trumpy	

'Flushing' is very similar to 'H. W. Sargent' and the others were not sufficiently distinct from or superior to the Waterer hybrids to enable them to survive the disruption to the nursery industry caused by the imposition in 1919 of Plant Quarantine No. 37. At that time, all but 'President Lincoln' disappeared from the market. This good lavender-pink hybrid is still propagated but it has been confused so often with the red-flowered 'Abraham Lincoln' that producers have become reluctant to offer it.

Ironically, the Parsons name is perpetuated solely today in two hybrids which originated at the Waterer nursery in England: 'Parsons Grandiflorum' and 'Parsons Gloriosum'. The veteran nurseryman Paul Vossberg states that Mr Parsons admired these two imported Rhododendrons and he obtained permission from Anthony Waterer to give them the names which are still familiar in the nursery industry.

Unusual Hybrids

A hybrid of an unfamiliar type in the eastern United States with small leaves and slender branching habit is available for the most severe climates through the talents of Joseph Gable, dean of American hybridists. His (*carolinianum* × *mucronulatum*) 'Conewago' bears pink flowers with a lavender undertone at an early season when it is especially valuable. Its lighter landscape effect and finer foliage texture make it blend more easily with other shrubs than do the typical large-leaved Rhododendron hybrids. 'Conewago' is successful also in many milder climates where the earlier blooming *mucronulatum* is too regularly injured by frosts. Mr Gable's more recent hybrid in this class is 'Pioneer', a phenomenally floriferous and effective dwarf evergreen shrub flowering early in the season. It is available commercially but it has not yet been tested sufficiently to confirm its preliminary promise of usefulness in the severest climates.

For the intermediate climate represented by that of New York City and along the coast farther north to Boston; for the Ohio and Pennsylvania shores of Lake Erie and for similar conditions there is a large group of satisfactory hybrids. All of the cultivars previously recommended can be grown, of course, and they should be liberally represented in any collection against the inevitable winter when unprecedented cold may decimate the ranks of hybrids whose hardiness has been less well established.

Generally, these Rhododendrons of intermediate hardiness are influenced in their adaptability by their Asian ancestors to a much greater extent than are the Catawba hybrids. They are more sensitive, not alone to winter cold, but also to other climatic conditions which are not conducive to their welfare. Thus good culture becomes increasingly important as these Rhododendrons approach the limit of their tolerance to local conditions. Their cold resistance is determined in good part by the numerous factors which affect hardiness as described in Chapter VII. Summer drouth, unfavorable soil or any other element of environment which impairs vitality will often lead to subsequent winter injury.

This increased sensitivity to growing conditions is probably responsible for the varying views held by specialists concerning the hardiness of hybrids in this group. As the tolerance toward unfavorable factors becomes more narrow their behavior in gardens becomes harder to assess. Atmospheric humidity, for example, may become the determining element in success or failure.

Some Rhododendrons in this class which are perfectly satisfactory at the Arnold Arboretum in Boston have failed in expert hands in the much milder climate of southern Pennsylvania. The reader must therefore be forewarned that some of these Rhododendrons cannot be purchased with quite the same confidence in their success as is justified with the ironclad Catawba hybrids.

In the Boston region the following Rhododendrons have been satisfactory in the collection of Walter Hunnewell. Those that Mr Hunnewell especially recommends on the basis of their performance in his garden are starred (*):

ABRAHAM LINCOLN*	red
ALBUM ELEGANS*	white, late, tall
ALBUM GRANDIFLORUM*	pale mauve, fading white; spreading
ALBUM NOVUM	white
ALEXANDER DANCER*	rose, light center
AMERICA	red
AMPHION	red
ATROSANGUINEUM	red
BOULE DE NEIGE*	white, early
BUTLERIANUM	white, pink flush; late
CANDIDISSIMUM	white, mauve flush
CARACTACUS*	dull purplish red
CAUCASICUM ALBUM	white, early
CHARLES BAGLEY	cherry red
CHARLES DICKENS*	red
C. S. SARGENT*	red, late
COUNTESS OF ATHLONE	mauve
CUNNINGHAM'S WHITE*	white, early
DONCASTER	scarlet
DELICATISSIMUM*	white, pink flush; late
DR H. C. DRESSELHUYS*	red
DR V. H. RUTGERS	red
EDWARD S. RAND*	red, bronze center
EVERESTIANUM*	rosy lilac
F. D. GODMAN	dark red
F. L. AMES*	pink, light center
GENERAL GRANT	rose
GIGANTEUM	rose
GLENNYANUM*	light pink, early
GLORIOSUM* (Waterer's)	blush white
GOMER WATERER	white, pink blush; late
HANNIBAL	rose
HENRIETTA SARGENT*	rose
H. H. HUNNEWELL	dark crimson
H. W. SARGENT*	crimson
IGNATIUS SARGENT*	rose
JOHN WALTER	crimson
KATE WATERER	deep rose, yellow center
KETTLEDRUM*	crimson
LADY ARMSTRONG*	rose, light center
LADY GREY-EGERTON*	pale mauve
LADY HILLINGDON*	pale mauve
LADY ROLLE*	white, yellow blotch
LORD ROBERTS	dark red
LUCIFERUM	white
MARQUIS OF WATERFORD*	bright red, light center
MINNIE*	white, mauve flush, orange spots
MADAME CARVALHO*	white
MADAME MASSON	white, yellow blotch
MRS C. S. SARGENT*	rose
MRS CHARLES THOROLD*	pink, yellow center
MRS JOHN CLUTTON*	white
MRS MILNER*	wine red
MRS P. DEN OUDEN	crimson
NOBLEANUM VENUSTUM*	rose, early
OLD PORT	plum color
PARSONS GLORIOSUM	rose
PARSONS GRANDIFLORUM	purplish rose
PRINCESS MARY OF CAMBRIDGE*	blush, white center
PROFESSOR F. BETTEX	red
PURPUREUM ELEGANS	purple
PURPUREUM SPLENDENS	purple
ROSEUM ELEGANS	lavender pink
SULTANA*	white, brown blotch
VAN DER BROECKE	carmine
VEN WEERDEN POELMAN	crimson
LAETEVIRENS (synonym: Wilsoni)	purplish rose

By no means are all of the ironclad cultivars displaced by hybrids of superior quality for climates similar to that of New York City. In a great many cases the gain in more attractive flowers is so slight as to be not worth the risk of an appreciable loss in hardiness. It becomes more a matter of additions to the list of recommended Rhododendrons. Hybrids which are unique in color, in stature, or in season of bloom can be grown in this milder climate which are not satisfactory farther north.

Among the red-flowered hybrids it is questionable whether any changes or additions should be made. 'Charles Bagley', 'Dr V. H. Rutgers', 'Edward S. Rand', 'Mrs P. de Ouden' and 'John Walter' can be planted by those who profess to see them as representing improvements in quality. Balancing the total of their virtues against their faults, unless a varied collection is being purposely assembled, my verdict is against making substitutions in the list of red-flowered hybrids already recommended which are ironclad in their resistance to cold.

'Lady Clementine Mitford' is a disputed candidate as an addition to the list of pink-flowered hybrids for this region. Its peach-pink blossoms with florets edged a deeper shade are

not matched in the ironclad group and it has grown well at the Arnold Arboretum near Boston. 'Old Port', with unique plum-colored blossoms, is also a satisfactory ornamental shrub at the Arnold Arboretum but it has been bud tender at times along Lake Erie. It is highly regarded at the New York Botanical Garden and is well worth a trial by those who find its color attractive.

The magnificent 'Purple Splendour', with its rich diadem of imperial color, is suitable for the region under discussion, and 'Blue Peter', a pale lavender with a deeper blotch, is an addition to the lists.

In white-flowered sorts two extraordinarily fine hybrids first enter the lists for cultivation in regions of climate similar to that of New York City. 'Gomer Waterer' loses its buds a little too often at Boston to recommend it for cultivation there but it gains enough in reliability at New York to justify planting it for its exquisitely beautiful blossoms with a faint pink blush. It is one of the best hybrids ever produced. 'Mrs P. D. Williams' has demonstrastrated its adaptability in Westchester County, New York, long enough to warrant a cautious commendation. Its large, ivory-white flowers, boldly blotched with a brown bee, make it a Rhododendron of exceptionally strong and attractive character. No claim is made that these two hybrids can survive the bitter extremity of unprecedented cold which seems to be visited upon the Northeast about once every twenty-five years, but plants of blooming size should repay their cost and keep long before such a rare catastrophe overtakes them.

'Baroness Henry Schroeder' and 'Madame Carvalho' are white-flowered cultivars which are occasionally seen in gardens and in nursery lists. They are a little hardier than the preceding, and quite a little less beautiful.

New Introductions

Perhaps the most interesting acquisitions for this sort of climate are some new hybrids created by Guy G. Nearing from unfamiliar species of dwarf stature. 'Ramapo' is a fine, low-growing Rhododendron with neat small leaves and lavender-purple flowers produced in abundance early in the season. 'Purple Gem' is similar but much deeper in color. These resulted from a cross of *carolinianum* × *fastigiatum* and they have the convenient dwarf stature of their pollen parent, seldom exceeding 2½ feet in height and a little less in diameter. Many gardeners will find a flowering evergreen of such dimensions to be a valuable asset for foundation planting and for various other uses on the home grounds. They prefer sun and exposure.

'Windbeam' and 'Wyanokie' are a pair of dwarf hybrids whose myriad blossoms smother the plants in mantles of attractive pink and white, respectively. These too are gems for foundation planting and for other situations where restrained growth is especially desired. The former matures at 6 feet, the latter at 3 feet. Open pollinated seeds grown by Mr Nearing from a Gable hybrid (*carolinianum* × *racemosum*) 'Conestoga', gave these two good little Rhododendrons to horticulture.

The Guyencourt Rhododendrons are a group of named sorts produced by crossing *R. pubescens* with *R. keiskei*. These also are Nearing hybrids of an unfamiliar sort, quite different from the usual large-leaved Catawba cultivars. Less than 2 feet in height with narrow leaves about 2 inches long, these new sorts bloom at the beginning of May in clusters of flowers crowded near the tips of slender, arching branches. They prefer part shade.

The Guyencourt hybrids are a race of Rhododendrons which vary considerably among themselves, so readers should understand that the different cultivars must be designated by their names to secure the exact duplications of the hybrids which have been described by the originator as follows:

BRANDYWINE	pale pink, turning rose
CHESAPEAKE	apricot, fading white
DELAWARE	pinkish yellow, turning lighter
HOCKESSIN	like 'Chesapeake' but larger stature, smaller flowers
LENAPE	pale yellow
MONTCHANIN	white

Two of Joseph Gable's scaly-leaved hybrids find their northern limit of usefulness in the general region and climate under consideration. His (*racemosum* × *mucronulatum*) 'Conestoga' is an engaging small shrub of upright habit with pink flowers produced early in the season. Its small leaves are not quite evergreen the year round: in late winter they are shed to make way for the replacements which come with the first new growth.

R. (*carolinianum* × *racemosum*) 'Conestoga', with multitudes of small pink blossoms, flowers profusely well before the midseason of Rhododendron bloom. It is a small shrub, neat in growth and attractively proportioned for the many situations appropriate to an evergreen of modest stature.

Two of Mr. Gable's creations of the conventional sort with large leaves also demand attention in this climate. 'Beaufort' and 'Caroline' are the first such hybrids introduced by an American breeder since the turn of the century which promise to find commercial acceptance and general distribution. They represent the first significant advance in the quality of Rhododendrons of this type, hardy in the Northeast, since Anthony Waterer brought over his ironclad Catawba varieties in 1876.

'Caroline' is thought to be a hybrid of *R. decorum* but no certain record of its parentage exists. Its blossoms are large and they are produced on a shapely shrub of faultless habit richly clothed with dark green foliage. In time it becomes a large specimen. The pale orchid-mauve blossoms are sweetly fragrant and this is the first hardy hybrid in commerce in the eastern United States to enjoy the heritage of scent from an Asian parent. 'Caroline' has not been injured in five years of testing in my garden, which is ordinarily suited only for Rhododendrons of the sternest hardiness.

R. ('Boule de Neige' × *fortunei*) 'Beaufort' bears white flowers just before midseason on a well-branched shrub of superior appearance which is not susceptible to attacks of Lace Wing Fly, as is its seed parent. It may be hardier than the conservative assessment inferred by its inclusion in this section.

"RHODODENDRONS OF THE WORLD"
– LEACH 1961

AN 29

INDIANAPOLIS -

THESE ARE RHODODENDRONS AND AZALEAS THAT ARE GROWN SUCCESSFULLY IN INDIANAPOLIS

Climatic Conditions USDA - Zone 6A (comparable British Zone Rating A,
Catalogue Classifications approved by American Rhododendron Society,
Zones H-1 and H-2)

R H O D O D E N D R O N S

Species

Carolineanum
Carolineanum Album
Catawbiense
Maximum
Racemosaum
Rupricola
Russatum
Yakusiamanum

Early Rhodo. Hybrids - "Ironclads"

Everestianum	Lavender
Roseum Elegans	Lavender-pink
English Roseum	Pink
Roseum Superbum	Pink
Album Grandiflorum	White-lavender
Catawbiense Grandiflorum	Purple
Cunningham's White	White
Lee's Dark Purple	Purple
Album Elegans	White
Catawbiense Album	White
Caractacus	Purple-red
Mrs.C.S.Sargent	Pink
Ignatius Sargent	Rose

Shamarello Hybrids

Cheer	Pale Pink-dark red blotch
Elie	Deep Pink
Holden	Rosey Red
Rocket	Coral Pink
Spring Glory	Rosey Pink
Spring Parade	Scarlet Red
Besse Howells	Burgandy Red
Lavender Queen	Lavender
Pink Cameo	Pink-yellow blotch
Pink Flair	Light Pink
Prixe	Coral Pink
Sham's Pink	Vivid Pink
Sham's Juliet/Apple	Blossom Pink-brown blotch
Tony	Cherry Red
Candy	Pink
Ice Cube	White
Pinnacle	Clear Pink
King Tut	Deep Pink
Romeo	Blood Red
Sham's Ruby	Blood Red-dk.red blotch
Spring Dawn	Rosey Pink
The General	Crimson Red

Dexter Hybrids

Scintillation	Two Tone Pink
Wheatley	Pink
John Wister	Pink
Tom Everett	Deep Pink
Lemon Ice	White
Brookville	Pink
Warwick	Mauve Pink

Gable Hybrids

Caroline	Pale Pink
County of York	Pale Pink
Cadis	Pink
Pioneer	
Conewego	
Albert Close	Rose Pink
Robert Allison	(Pink #2)
David Gable	(Pink #1)

Leach Hybrids

Janet Blair
Vernus
Yakusimanium Mist Maiden

MORE

INDIANAPOLIS

RHODODENDRONS CONT'D.

Amateis Hybrid
- Dora Amateis — White

Hobbie Hybrids (Germany)
- Scarlet Wonder — Dwarfish Red
- Elizabeth Hobbie — Dwarfish Red

Ghent Hybrids

Exbury-Knaphill Hybrids

Nearing Hybrids
- Rochelle
- Guyencourt Hybrids
  - Chesapeake — Pink
  - Hokessin — Apricot
  - Brandywine — Pink
  - Mountchanin — White
- Wyanokie
- Windbeam
- Ramapo

Miscellaneous Hybrids

America	Red
Blue Peter	Lavender Blue
Boule De Neige	White
Catawbiense Boursault	Lavender
Chionoides	White
Duke of York	Rose Red
Kate Waterer	Pink-yellow blotch
Maxicat	
Minnie	White-brown blotch
Nova Zembla	Red
P. J. M.	Lavender-pink
Purple Splendor	Rich Purple
White Gem	White to Lavender
Wilsoni	(Foliage only)

A Z A L E A S

Species

Arborescens	White to pink-sweet smelling
Calendulaceum	
Impedition	Dwarf
Mucromulatum	
Mucronatum	White
Nudiflorum	Pink
Poukanense	Dwarf Purple
Schlippenbachi	
Vaseyi	Pink to White

Gable Hybrids

Boudoir	Pink
C-5-6	Rose pink
Herbert	Purple
Louise Gable	Pink
Mildred Mae	Lavender
Purple Splender	Purple
Rosebud	Double Pink
Springtime	Strong Pink
Stewartstonian	Brilliant Red

Vukyiana Hybrid
- Palisturina — White

Kurume Hybrid
- Hinomayo — Pink

Kampferi Hybrids

Cleopatra	Rose
Fedora	Rose

Shamarello Hybrid
- Sparkle — Red

Arnoldia Hybrid
- Mello-Glo — Vivid Pink

Ghent Hybrids

Coccinea Speciosa	Red Orange
Daviesi	White
Nancy Waterer	Yellow

Exbury & Knaphill Hybrids

Mark M. Holeman, Landscaper
Indianapolis, Ind. 46250 (1973)

Azaleas and Rhododendrons

1.

TWO MONTHS OF AZALEA BLOOM

AZALEAS form a most colorful display of bloom in the springtime, and if care is taken in selecting certain species, it is possible to obtain a flowering sequence for a period of over two months. Many azaleas commonly grown in the south are not hardy in the northeastern United States, but all are valued for their bright flowers and some for their fragrance. The foliage of some deciduous azaleas turns yellow to red in the fall, and such forms certainly warrant more extensive use. The more plants of twofold interest that we can use in our gardens, the longer our gardens will be enjoyed.

Although there are a large number of excellent hybrid azaleas available in the trade today, it is the object here to discuss briefly only certain species and a few varieties which are known to bloom in sequence in the Arnold Arboretum, so that by selecting plants from this list it may be possible to have azalea flowers in the garden for eight or ten weeks.

Order of Bloom

Mid April	
Rhododendron mucronulatum	Korean Rhododendron
Early May	
R. mucronatum	Snow Azalea
Mid May	
R. albrechti	Albrecht Azalea
R. canadense	Rhodora
R. obtusum amoenum	Amoena Azalea
R. obtusum arnoldianum	Arnold Azalea
R. obtusum "Hinodegiri"	Hinodegiri Azalea
R. obtusum kaempferi	Torch Azalea
R. schlippenbachi	Royal Azalea
R. vaseyi	Pinkshell Azalea
R. yedoense poukhanense	Korean Azalea
Late May	
R. atlanticum	Coast Azalea
R. gandavense	Ghent Hybrids
R. japonicum	Japanese Azalea
R. kosterianum	Mollis Hybrids
R. nudiflorum	Pinxterbloom
R. roseum	Downy Pinxterbloom
Early June	
R. calendulaceum	Flame Azalea
Mid June	
R. arborescens	Sweet Azalea
Late June	
R. viscosum	Swamp Azalea

Rhododendron mucronulatum: This was originally introduced into America by the Arnold Arboretum in 1882 and blooms before any of the azaleas. It is the only true rhododendron discussed here and is one of the two deciduous rhododendrons. The flowers are large and rosy purple. If the weather remains cool, it may hold its beautiful flowers for about two weeks. Sometimes late frosts kill the flowers after they have opened, but if it is planted in the shade and protected from the morning sun the chances are increased for its remaining in good condition for some time. Most of the early blooming shrubs have yellow flowers in the early spring, but here is one with a rosy purple color which makes it very conspicuous.

Rhododendron mucronatum (*Azalea mucronata, A. ledifolia alba, A. indica alba*): Unfortunately, this lovely white flowering azalea, although perfectly hardy from Long Island southward, is not completely hardy in New England gardens. Still it can be grown in shaded and protected situations, especially in gardens on Cape Cod. This lovely plant, so highly valued for its white flowers, has been in this country for almost one hundred years. It is one of the best azaleas for pure white flowers, it roots readily from cuttings, and forms a dense flat-topped mass of foliage that faces to the ground on all sides. Where it can be well grown, it is an excellent plant to use in combination with such bright colored sorts like *R. obtusum kaempferi,* for although it blooms slightly earlier, the flowers remain on the plant long enough to make a striking color combination with the later blooming torch azalea.

MORE

Rhododendron albrechti: This excellent azalea is as yet very difficult to find in American nurseries. The two inch flowers are a rose bengal shade (25/2 in the Royal Horticultural Colour Chart)—a reddish or rose color without any of the purple that is common to some of the earlier blooming species. The foliage turns a yellow autumn color. The Arnold Arboretum is now trying to establish an English strain of this species that is outstanding for its color and is highly valued in England wherever azaleas are grown in that country. It is a native of Japan, first introduced into America by the Arnold Arboretum in 1892.

Rhododendron canadense (*Rhodora canadensis*): The rhodora grows all over New England and southeastern Canada where it covers large areas of many acres. The flowers are small, magenta rose to nearly white in color. In fact there is a white flowered variety. It likes moist swampy areas where it is perfectly at home. It grows about 1 to 3 feet tall and is perhaps the least ornamental of all North American azaleas.

Rhododendron obtusum: Neither *R. obtusum amoenum* (*Azalea amoena*) nor *R. obtusum "Hinodegiri"* (*A. hinodegiri*) are completely hardy in Boston. The former is probably hardier than any other evergreen azalea, but its flowers are a very poor magenta color that is extremely hard to use in combination with any other color. On the other hand, *R. obtusum "Hinodegiri"* has decidedly better flowers and foliage, but it is not quite as hardy. The foliage of both of these plants is superior to that of *R. mucronatum.* In some places *R. obtusum amoenum* is used as a clipped hedge because of its very small leaves and also because it stands clipping very well. *Rhododendron obtusum arnoldianum* (var. *amoenum* × var. *kaempferi*) is similar to var. *amoenum,* except that it grows taller and is hardier, being hardy in the Arboretum, and the flowers are a deep rosy mauve to red. It originated in the Arboretum as a seedling in 1910, and can be substituted for var. *amoenum* where this is not hardy. *Rhododendron obtusum kaempferi,* the torch azalea, is the common mountain azalea of Japan. Although it had been known for a very long time, it first appeared in the United States when Professor Sargent brought seeds to the Arnold Arboretum in 1892. Since that time it has grown splendidly and has proved to be the best bright red azalea for northern gardens. The Arnold Arboretum now has hundreds of these plants on its hillsides, and when they are in bloom they make a better display than any other azalea. In places the woods look almost as if they were afire, the color is so vivid. Because the flowers may be injured by the hot sun, it is advisable to plant them in shaded places. In the Arboretum some of the plants are considerably over 5 feet tall, and they may eventually attain a height of 10 to 12 feet, with a correspondingly broad spread.

The plants are partly deciduous in Massachusetts, but farther south the leaves of *R. obtusum* varieties (except var. *kaempferi* which is wholly deciduous) are retained throughout the winter. The flowers of var. *kaempferi* range in color from salmon to a brick red. When the plants are massed together, as is often best in order to afford some protection to the roots, they make a dense mass of foliage and flowers and form one of the best displays of Japanese plants growing in the Arboretum.

Rhododendron schlippenbachi: This is another Korean plant much used in that country, introduced by the Arnold Arboretum from seed sent by Professor Jack. The flowers are very large, sometimes as much as 3 inches in diameter, and a pale to rosy pink. Apparently perfectly hardy under New England conditions, this plant may grow to be 15 feet tall, but is usually under 8 feet in height. One of its valued characteristics is the fact that in the fall the leaves turn from yellow to orange crimson, thus enabling landscape gardeners to utilize it for autumn as well as spring color.

Rhododendron vaseyi: This is the second of the native azaleas to bloom in the spring. It is found in a few valleys of the southern Appalachian Mountains, chiefly in South Carolina where it grows to be 15 feet tall, but in New England is usually under 8 feet in height. The flowers appear before the leaves and are a good pink color. It is perfectly hardy in Boston and is highly valued for its delicate flowers, which are very conspicuous because they appear before the leaves.

Rhododendron yedoense poukhanense: Originally named by a French botanist from Mt. Poukhan in Korea, where the plant was discovered for the first time by a French missionary, this plant was introduced into this country by Professor J. G. Jack of the Arnold Arboretum in 1905. The flowers are a pale lilac-purple and are usually borne in great profusion. The plant itself rarely grows taller than about 3 feet and is thus well suited for rock gardens and small borders. The branches grow close to the ground making a dense mass. In using it in combination with other flowering plants, its color should always be kept in mind for this proves rather difficult to combine well with red. Strangely enough the double flowered form ("Yodogawa" in the trade) is the species.

MORE

Rhododendron atlanticum: This little azalea is native on the Coastal Plain from southern Pennsylvania to South Carolina. It seldom gets over 18 inches tall and can be considered the smallest of all the azaleas here mentioned. Its flowers normally are white (there are pink forms), fragrant and about the size of the flowers of *R. nudiflorum*. It is considered as hardy as *R. obtusum kaempferi*, does well in the Arboretum and is an excellent little plant to use, particularly in small scale plantings. It does equally well in both sun and shade, and is good for filling in around the bases of taller growing azaleas when this is necessary. (CAREFUL!)

Rhododendron gandavense: The Ghent azaleas are very popular and many interesting forms are available. These result from crosses between the tender, fragrant, yellow-flowered *R. luteum* (*A. pontica*) the American *R. calendulaceum*, and *R. nudiflorum*. The colors in these hybrids are all shades and combinations of those of the parent plants. Some of the better outstanding varieties available from a few American nurseries are: (fls. single) "Coccinea speciosa"—saturn red, filaments red; "Daviesi"—white, blotched yellow; "General Trauff"—rose shaded orange; "Gloria Mundi"—fire-red, upper petal orpiment-orange; "Nancy Waterer"—yellow; "Pallas"—jasper-red with markings of Indian yellow on upper corolla; "Unique"—bronze; (fls. double) "Bijou de Gentbrugge"—white, flushed pink; "Narcissiflora"—sulfur-yellow; "Raphael de Smet"—white, flushed pink; "Souv. de Pres. Carnot"—cadmium-orange and brick-red.

Rhododendron japonicum: The large orange-red flowers of the Japanese azalea are particularly outstanding, but unfortunately they have a most disagreeable odor. The plant is valued for its large flowers and its hardiness. Because it is perfectly hardy under New England conditions, it is used considerably in breeding work. During late May, there are a large number of multi-colored azaleas that bloom in great profusion, and many of these are hybrids of this Japanese azalea.

Rhododendron kosterianum: The "Mollis" hybrids are the result of a cross between *R. molle*, which is tender here in the North, and *R. japonicum*. Mr. T. D. Hatfield's original hybrid named "Miss Louisa Hunnewell" is an outstanding example of this group. Some of the better outstanding varieties available from a few American nurseries are: "Hugo Koster"—poppy-red with orange markings; "Miss Louisa Hunnewell"—orange-yellow; "Otto Lilienthal"—ivory-white; "Phidias"—light pink and yellow, double; "Snowdrift"—white.

Rhododendron nudiflorum: All the azaleas blooming after June 1 are natives of this country. The common pinxterbloom is a familiar sight everywhere, for it is native over wide areas of the eastern United States.

Rhododendron roseum: Another New England plant, this is probably the best of the azaleas native to this general region. Its flowers are a deep rosy pink, and most fragrant.

Rhododendron calendulaceum: The flowers of the flame azalea are usually a brilliant orange, but lack the fragrance of the two preceding species. It occurs in the mountains from Pennsylvania south to Georgia, and is very abundant on the lower slopes of the high mountains of North Carolina and Tennessee. It is the most showy of the American azaleas which have been established in the Arnold Arboretum. It is perfectly hardy and superior to most of the hybrids derived from it. One of its best features is the fact that its flowers remain in good condition for a considerably longer period than do those of the Asiatic azaleas, for they are not injured by excessive heat.

Rhododendron arborescens: Since the flowers of this azalea do not appear until after the leaves are fully grown, it is not as conspicuous as some of the others, but it is very fragrant. The white or slightly pink flowers are of interest because of their fragrance and also because of the long red stamens. At high elevations it only grows a few feet tall, while in valleys in the mountainous regions where it is at home it may grow to be 18 feet tall. It is another native of the Appalachian Mountains.

Rhododendron viscosum: This is a common plant in swampy regions in the northeastern United States and is valued because it is the last of all the azaleas to bloom. Its flowers are usually pure white and most fragrant. Strangely enough, in spite of its natural habitat, it does not require swampy conditions, as it will thrive in almost any fertile acid soil.

PR 110-117

WYMANS – ARNOLD ARBORETUM GARDEN BOOK
© 1954

AL 34

* BEST SHRUBS

Rhododendron arborescens 9′ Zone 4 Sweet Azalea

An unusually fragrant species, blooming near the end of the azalea sequence. Even though the beautiful white flowers do appear after the leaves, they are conspicuous and their delicious fragrance makes them useful in mass plantings.

Rhododendron calendulaceum 9′ rarely 15′ Zone 5 Flame Azalea

This is the most showy of the American species and is among the best for northern gardens. It has the unique property of retaining its colorful flowers in good condition in full sun for nearly two full weeks in June. The flowers of many Asiatic azaleas quickly fade in direct sun and so must be used with partial shade if they are to be enjoyed for a longer period. When large numbers of seedlings are grown it is noticed that the flower colors vary from yellow (orange buff 507 to cadmium orange 8) to scarlet (19) on the Royal Horticultural Colour Chart. The lighter colored forms have been given the varietal name *croceum*, and the red-colored types the varietal name *aurantiacum*. Since very few azaleas are in flower at the time this species blooms, this variation in color is most helpful in making an interesting display—when planted singly and in groups in an open oak woods, there is nothing at this time of year more colorful.

Rhododendron gandavense 6–10′ Zone 4 Ghent Azalea

There are many hybrid varieties of this hardy species of value because they bring brillant red and yellow flowers into the garden at a time when they are greatly needed. Ghent azaleas have lived many years and been perfectly hardy as far north as Bryant Pond, Maine, where they have been exposed to temperatures as low as 20 degrees below zero. Some nurserymen grow these from seed, some propagate them by asexual means so that the definite colors of the variety will be maintained. A very interesting and lively colored group, these should be used considerably more than they are, and it is hoped that more and more nurserymen will find means of propagating them asexually. They bloom just before *R. calendulaceum*.

Rhododendron mucronulatum 6′ Zone 4 Korean Rhododendron

Although another member of this genus blooms earlier in the Arnold Arboretum, this Korean Rhododendron can really be considered the first of its clan to bring forth flowers in the spring, since the other is not a good ornamental. It is not wise to use this plant in the coldest parts of the state, but if planted where it obtains some winter protection, it will usually bloom in mid-April except in the coldest years. A particularly good plan is to use it on the northern slopes where its early opening flowers may be retarded just long enough to protect them from late freezes. Easily pruned, and perfectly at home under pine trees, it is one of our earliest flowering shrubs.

Rhododendron schlippenbachi 15′ Zone 4 Royal Azalea

A handsome azalea because of its good growth habits and general appearance. It has very large flowers appearing in mid-May and is fortunate in being in the group with colorful autumn foliage. These are two important reasons for including it in the garden.

Rhododendron smirnowi 6–18′ Zone 4 Smirnow Rhododendron

Perfectly hardy as far north as Boston, this dense rhododendron makes a good ornamental not only for its large flowers but also because the undersurfaces of the leaves are covered with a conspicuous white, woolly tomentum that adds to its attractiveness. Because of this woolly undersurface, the plant is not infested with lace bug—an important maintenance item. Sometimes the flowers have corollas with a wavy margin which is another desirable characteristic. All in all this species, though little used yet in American gardens, can well be added to an ever lengthening list of worthy rhododendrons.

Rhododendron vaseyi 6–9′ Zone 4 Pinkshell Azalea

This native azalea is one of a very few with colorful autumn foliage in the fall, hence it has two good seasons of interest in gardens. It does well in moist situations bordering ponds where its delicate pink flowers can be reflected in the water, or it will do well on drier soils. One of the best of the native azaleas, the flowers appear at the same time that the young leaves of the oaks are unfurling.

* CHAPT.- Forty-Five of the Best Shrubs for Massachusetts Gardens

P. 198+ WYMAN – ARNOLD ARBORETUM GARDEN BOOK © 1954

CLASSES OR GROUPS OF AZALEAS

There are several important groups of azaleas and, with proper selection, azaleas can bloom in the garden for two consecutive months. First, there are the species and their botanical hybrids. These come from all parts of the world's northern temperate regions. Those native to North America are well worth growing as ornamentals. Those from China and Japan add vivid colors to this important, stable and dependable group. It was noticed hundreds of years ago that azaleas hybridized readily, and hundreds of varieties have originated as a result of the work of many hybridizers who used the species as the parents of original crosses.

Some species have contributed color to these hybrids, other species have contributed size of flower and hardiness. Today, with possibly a thousand different azaleas being grown in this country, the relationships of one plant to another become rather confused to all but the rhododendron and azalea specialists.

It will be sufficient for the purposes of this book to mention only a few of these general hybrid groups. There are several excellent references which can be used for more careful study of this diverse and colorful clan of flowering shrubs.

The Indian Azaleas

The large-flowered azaleas, commonly grown in greenhouses in the North, are at their best outdoors in the famous gardens of the deep South. Some are strains introduced from England as early as 1830. Single- and double-flowered forms are available, ranging in color from white to rose, with many variegated forms and flowers 1½" to 3" in diameter. They are not derived from a single species as the Kurume azaleas, but are the result of cross-breeding a number of different species, *R. simsi*, *R. pulchrum*, *R. mucronatum* and some of their varieties. All have had a strong influence on the hybrids of this group as they are grown today. Years ago this heterogenous mixture became known as the Indian azaleas, although *R. indicum* probably has had little to do with their ancestry and they certainly are not natives of India.

Kurume Azaleas

Ernest H. Wilson was responsible for first introducing this excellent group into American gardens in 1916. He found that all of these can be traced more or less directly to the various forms of *R. obtusum*. Japanese gardeners had been developing certain strains of the wild *R. obtusum* of Japan for over a century, when Wilson visited that country in 1914 and found over 200 named variations of this one species.

As a group, the Kurume azaleas are hardier than the Indian azaleas, with smaller flowers, smaller leaves and more dense in habit of growth. Certain of the better forms such as "Apple Blossom," "Christmas Cheer," "Salmon Beauty," and others are grown outdoors in sheltered situations as far north as Long Island. As a rule they have dense, twiggy growth and small leaves. In this group belong such azaleas as "Hinodegiri," *R. obtusum amoenum* and *R. obtusum album*, all of which are commonly grown outdoors in Philadelphia, and with protection, on Long Island. Their flowers may be single or double, depending on the variety, and are usually a delicate pink to bright scarlet, about ¾" to 1½" in diameter.

There are over 50 named varieties of Kurume azaleas available today in the United States, many of them grown as greenhouse pot plants. Their bright-colored flowers, dense twiggy habit of growth and quick response to clipping, make them excellent specimens regardless of whether they are grown as pot plants in the greenhouse or as specimens out-of-doors. When these varieties are well grown, and particularly if clipped properly, they are a solid mass of color when in full bloom.

The Ghent Azaleas

Three American azaleas, *R. calendulaceum* (orange), *R. viscosum* (white and fragrant), and *R. nudiflorum* (pink) were introduced into England in 1788. About fifty years later the large-flowered yellow *R. lutcum* was introduced into western Europe, and soon crosses among these species began to appear. It was in Ghent, Belgium, that a greater part of the breeding was done, so it is from this Old World town that this group of azaleas takes its name. The specific name of the group is *R. gandavense*. As early as 1836, approximately 107 "Ghent" azaleas were known, and the number today is far in excess of this.

The Ghent hybrids are considerably hardier than either the Indian or the Kurume hybrids, many being hardy even in central Maine where temperatures may go as low as −20° F. The colors vary between pure yellow and pure white, to combinations of pink and scarlet having much more yellow than either the Indian or the Kurume azaleas. There are varieties with double flowers. They do not grow very well in the far South, but where they do thrive, their gorgeous flowers afford brilliant spots of color that are unsurpassed by any other hardy woody shrub.

The Mollis Azaleas

The Mollis hybrids are based on a cross between tender, yellow *R. molle*, the Chinese azalea, and the hardy, red *R. japonicum* of Japan, given the specific name *R. kosterianum*. The most famous member of this group is the much advertised "Miss Louisa Hunnewell," raised by the late Mr. T. D. Hatfield of Wellesley, Massachusetts. It should be pointed out that this strain should be asexually propagated, since the seed does not always yield the true "Miss Louisa Hunnewell." Because of the hardiness of *R. japonicum*, several of the Mollis hybrids have proved reliably hardy in New England.

The Mucronatum Azaleas

Particular mention should be made of the very valuable and popular Snow Azalea, offered in the trade under the names of *A. indica alba* or *A. ledifolia alba*, the correct name being *R. mucronatum*. The best of all the white-flowering evergreen azaleas, it is hardy as far north as Boston if well protected in the winter. The flowers are pure white, often 2" in diameter. The plant itself sometimes grows 6' tall, though commonly it is low, dense and compact. Occasionally forms arise with flowers tinged pink, and there is a double-flowered variety as well. A splendid plant and one which should be used wherever azaleas are grown.

PP. 250-252 WYMAN - SHRUBS + VINES ETC.

2.

FLOWER COLORS OF ONE HUNDRED HARDY AZALEAS

There are literally hundreds of azaleas being grown in the United States today; many are hardy only in the warmer parts of the country. However, there are a large number being grown in the Arnold Arboretum, and it might be of interest to note the color of one hundred of these. Our records are not complete concerning the flower colors of all the varieties we are growing, but each one in the following list has been grown in the Arboretum and its flower color has been compared with the color chart of the Royal Horticultural Society.

It is perfectly evident to anyone who has studied flowering plants that the color of the flowers varies from day to day, and possibly even from year to year. It is impossible to record in words or numbers the exact colors in some of the varieties which may sport several beautiful colors in one flower. Rather, it has been the practice here to record the major color for any such list as is offered here, refraining from minute descriptions such as that in our records for Azalea "Prince Henri de Pays Bas," reading as follows: "Flower: 2¼" in diameter, 614/1 on edge of upper petal with 9 at throat; other petals 20/1 with white streak in center of outer tip." Instead, this is listed as merely 20/1 (geranium lake), this being the predominating color of the flower.

The Royal Horticultural Colour Chart is still America's best means of properly identifying flower colors. The means by which colors and hues are recorded as numbers, as well as names, has many advantages. Various movements have been started in the United States to produce "better" color charts, but as yet, none have been published. Consequently, the following list is offered as a rough approximation of the coloring of these azaleas as they have bloomed in the Arnold Arboretum during the past years, measured by means of comparisons with the Royal Horticultural Colour Chart.

Azalea Flower Colors

(All flowers are single unless otherwise noted)

	Size	*Bud*	*HCC fl*	
albrechti	2"	25	25/2	Rose Bengal
"Alphonse Lavallee"	3¼"	—	620/1	Porcelain Rose
"Anthony Koster"	2½"	12/2	605/2	Chrome Yellow
"Apricot"	2"	—	21/3	Carmine
"Atlanta"	2"	—	630/1	Mallow Purple
"Aurore de Roughem"	2½"	—	427	Rose Pink
"Beethoven"	2¾"	—	31/1	Orchid Purple
"Betty"	1¾"	—	623/2	Neyron Rose
"Big Joe"	2"	—	630/1	Mallow Purple
"Bijou des Amateurs"	—	0619	523	Dawn Pink
"Bijou de Gandbrugge" (dbl)	1¾"	—	17/2	Mandarin Red
"Bouquet de Flore"	2"	—	20/2	Geranium Lake
"Briarcliffe"	1¾"	—	625/2	Spinel Pink
"Bryon" (double)	2¼"	white, hose in hose		White
calendulaceum croceum	2"	—	604/1	Straw Yellow
"Cardinalis"	1¾"	—	625/1	Spinel Pink
"Carmen"	2½"	022	22/1	Crimson
"Carmine"	2¾"	—	623/1	Neyron Rose
"Caroline Gable"	1¾"	23/1	623	Neyron Rose
"Charlemagne"	2"	13/1	11/2 and 607/2	Marigold Orange, Maize Yellow

ANL MORE 37

"Cherokee"	1½"	—	820/2	Blood Red
"Chinook"	2"	—	620	Porcelain Rose
"Cleopatra"	2½"	—	623/1	Neyron Rose
"Coccinea Speciosa	—	13	13/1	Saturn Red
"Compte de Flandre"	2⅛"	—	21/1	Carmine
"Compte de Papadopoli"	3"	016/1	620/1	Porcelain Rose
"Compte de Quincy"	2½"	605/1	605/2	Chrome Yellow
"Consul Ceresole"	3½"	19/1	620/1	Porcelain Rose
"Coquette"	3"	620	623	Neyron Rose
cumberlandense	1½"	—	15/1	Fire Red
"Cymodoce"	2½"	619/1	523	Dawn Pink
"Daviesi"	2¼"	604/1	White	White
"Dexter's Pink"	1½"	—	625/2	Spinel Pink
"Dr. Chas. Bauman"	1¾"	—	14/2	Nasturtium Red
"Early Dawn"	1½"	—	28/2	Fuchsia Purple
"Elizabeth Gable"	2⅛"	622	622	Camellia Rose
"Fanny"	2¾"	—	625/1	Spinel Pink
"Fedora"	2"	—	625/1	Spinel Pink
"Flamboyant"	2"	018	016/1, 607/1, 601/2	Brick Red, Maize Yellow, Primrose Yellow
"Flora"	1½"	—	619/1	Coral Pink
"Frere Orban"	2½"	—	605/3	Chrome Yellow
"Furst Camille Von Rohan"	2⅛"	605/2	White	White
"Gloria Mundi"	2½"	—	13/1	Saturn Red
"Glory of Dawn"	2"	—	625/2	Spinel Pink
"Graf Von Meran" (double)	—	623/1	623/2	Neyron Rose
"Heureuse Surprise"	1¾"	—	527/2	Rhodamine Pink
"Hortulanus Witte"	2"	612	9/2	Tangerine Orange
"Hugo Koster"	2¾"	016/1	16/2	Poppy Red
"Ignaea Nova"	2½"	821/3	719/3	Signal Red
"Il Tasso" (double)	2¼"	—	19/2	Scarlet
"Irene Koster"	2½"	616/1	523/2	Dawn Pink
"Iroquois"	1¾"	—	19/2	Scarlet
"Joh. S. Bach"	2½"	—	28/2	Fuchsia Purple
"Josephine Klinger"	1¾"	—	619	Coral Pink
"La Lumiere"	1½"	021	021	Claret Rose
"La Premiere" (double)	1"	527	625/3	Spinel Pink
"Louise"	1¼"	—	23/1	Rose Madder
"Louise Gable" (double)	1¾"	—	621/1	Empire Rose
"Marion Merriam"	2½"	—	9 upper corolla, 605, lower	Tangerine Orange, Chrome Yellow
"Mary Dalton" (double)	1¾"	20/1	19/2	Scarlet
"Mauve Queen"	2¼"	—	630/2	Mallow Purple
"Mello-Glo"	1"	—	26/2	Solferino Purple
"Milton" (double)	2¼"	—	White	White
"Minerva"	2¼"	—	622/3	Camellia Rose
"Ministre Thorbecke"	3¼"	016/1	616	Shrimp Red
"Miriam"	1¾"	—	623/1	Neyron Rose
"Mme. Gustave Guillemot"	2¼"	822/3	22/1	Crimson
"Mossieanum"	—	—	627/1	Fuchsine Pink
"Narcissiflora" (double)	1¾"	605	605/1	Chrome Yellow
nudiflorum	1½"	—	625/3	Spinel Pink
obtusum amoenum	1⅞"	0621	523/1	Dawn Pink
obtusum arnoldianum	1¾"	—	627	Fuchsine Pink
obtusum japonicum	¾"	—	630/1	Mallow Purple
obtusum kaempferi	2½"	—	620	Porcelain Rose
"Old Faithful"	2¾"	—	632/2	Phlox Purple
"Othello"	1"	—	20/1	Geranium Lake
"Pallas"	1¾"	018	018/1	Jasper Red
"Phidias" (double)	1¾"	618	602/3	Mimosa Yellow
"Phoebe" (double)	2"	5/2	606/2	Chinese Yellow
"Polaris" (double)	1¾"	—	White	White
"Praxiteles" (double)	1¾"	7/2	604/2	Straw Yellow
"Prince Henri de Pays-Bas"	2¼"	020/1	20/1	Geranium Lake
"Pucella"	1¾"	—	623/2	Neyron Rose
"Purple King"	1⅞"	—	027/1	Magneta Rose
"Raphael de Smet" (double)	—	620	420/2	Venetian Pink
"Rembrandt"	1½"	0022	022/1	Rose Opal
"Rio des Feux"	2"	821/1	719/3	Signal Red
roseum	2"	623	623/1	Neyron Rose
"Sang de Gentbrugge"	1¾"	00823/2	719/3	Signal Red
schlippenbachi	3"	—	427/1	Rose Pink
"Sibelius"	2"	—	018/1	Jasper Red
"Souvenir de Pres. Carnot" (dbl)	1½"	—	8/2	Cadmium Orange
"Springtime"	2"	—	24/2	Tyrian Rose
"Unique"	2"	—	9/1	Tangerine Orange
vaseyi	2¼"	22/2	24/3	Tyrian Rose
viscosepalum	1¾"	4/2	White	Indian Yellow
"William III"	2¼"	018	14/2	Nasturtium Red
yedoense (double)	2"	—	30/2	Cyclamen Purple
yedoense poukhanense	2"	—	632/2	Phlox Purple
"Zampa"	2¼"	022	625/2	Spinel Pink

PP. 117-120
WYMAN – ARNOLD ARBORETUM GARDEN BOOK © 1954

FLOWER COLORS OF HARDY HYBRID RHODODENDRONS

The hybrid broad-leaved evergreen rhododendrons are most conspicuous during early June. If grown in fertile, acid soil, mulched properly and pruned properly (see *Arnoldia*, Vol. 8, No. 8, September, 1948) they should produce a bright display of flowers annually. The collection in the Arnold Arboretum is over fifty years old and has been added to continually from year to year. Rhododendron enthusiasts are continually studying this collection, noting the differences between the many varieties now being grown. Not all that are available in the eastern United States nurseries are here, but many are, and it serves a valuable purpose, at the same time making a splendid display.

It is most difficult to identify properly the many hardy rhododendron hybrids. The species are of course keyed out in standard botanical keys, but there is little easily available information about the identification of hybrids grown in the East. There are no colored pictures or paintings sufficiently accurate for this purpose, nor are there suitable descriptions of the flower colors. Articles for popular periodicals are numerous, but color descriptions in these are entirely too general. The term "crimson flowers" may cover a dozen or more varieties, each one of which does differ slightly from the others. Size of truss, of flower, markings on corolla and even the color of the stamens and pistils are all aides in identification.

Consequently, we have started an attempt at the proper description of hybrid varieties, growing in our collection, by the careful comparison of colors of the flowers as they bloomed in 1949, with the colors of the Royal Horticultural Society's Colour Chart. This has its drawbacks, as anyone familiar with plants is quick to point out. In the first place, the color of the flowers varies slightly depending on whether they open in shade or full sun. The size of the flower varies according to the amount of nourishment the roots are able to receive. Flowers quickly fade in full sunlight—this and many other criticisms can be justly leveled at any such comparison.

However, an attempt is here made to enumerate the respective characteristics of the rhododendron hybrids as they performed with us in 1949, all growing in the same soil together, under the same conditions. Readings and comparisons were made from a representative flower truss in full bloom. Even with the weaknesses of this method, the resulting information is valuable. It aids materially in pointing out the fact that there are many varieties being grown, several of which will give the same landscape effect. True, there may be slight differences in color or size of corolla or flower truss, or the markings or the colors of the pistil and stamens may differ slightly, affording reason for different varietal names, but when some 50 named varieties are brought together in a single room for comparison, similarities are striking and should be emphasized.

Judging them from the viewpoint of their serviceability in the landscape, there are many which are practically identical. This is important. There is a slight variation in time of bloom; some come earlier than others, and the trusses of some are more dense and larger than others—reasons why certain growers prefer some rather than others. The following list, it is hoped, is only a start at the time-consuming task of comparing all the varieties grown in the East. Whether or not this means of identification has merit can best be judged by each individual rhododendron enthusiast. Comments on this method of approach and the measurements given for these varieties will be greatly appreciated.

Flower Colors of Hardy Hybrid Rhododendrons

Group I White (General landscape effect)

Rhododendron caucasicum coriaceum — pure white
Truss: 3½″ high and 5″ wide; loose, rounded
12 flowers in truss; flower diameter 2½″
Markings inside corolla: Chartreuse green (663/1)
Style and stigma reddish;* base of corolla outside pale reddish; blooms early

Rhododendron "Boule de Neige" — pure white
Truss: 4″ high and 6″ wide; compact, rounded
14 flowers in truss; flower diameter 2¾″
Markings inside corolla: Chartreuse green (633/1)
Edge of petals slightly frilled;** plant blooms early.

Rhododendron "Baroness Henry Schroeder" — white
Truss: 3″ high and 5½″ wide; loose, rounded
14 flowers in truss; flower diameter 2¾″
Markings inside corolla: Cyclamen purple (30/1)
Plant blooms early.

* Pistils and stamens are whitish unless otherwise noted.
** Petal margins not frilled unless otherwise indicated.

MORE

AN 39

Group II Pale Blush Pink to Whitish

Rhododendron "Album elegans" Dawn pink (523/) fading white in center
Truss: 5" high and 6" wide; dense, pyramidal
18 flowers in truss; flower diameter 2½"
Markings inside corolla: Primrose yellow (601/2)
Stigma red, style pink.

Rhododendron "Sultana" Dawn pink (523/3) fading to white
Truss: 4" high and 6" wide; dense, pyramidal
12 flowers in truss; flower diameter 2½"
Markings inside corolla: Majolica yellow (o9/1) pronounced
Anthers purplish; blooms last of all those listed here.

Rhododendron catawbiense album Neyron rose (623/3) to whitish
Truss: 4½" high and 6" wide; dense, pyramidal
20 flowers in truss; flower diameter 2¼"
Markings inside corolla: Primrose yellow (601/1) very faint and few.

Rhododendron "Album grandiflorum" Neyron rose (623/3) to whitish
Truss: 4" high and 5" wide; dense, pyramidal
18 flowers in truss; flower diameter 2¾"
Markings inside corolla: greenish yellow (64/2) few and inconspicuous
Stigma red, margins of petals slightly frilled.

Rhododendron "Delicatissimum" Rose madder (23/3) fading to white at center
Truss: 4" high and 5" wide; loose-dense, rounded
14 flowers in truss; flowers 2¼" diameter
Markings inside corolla: Greenish yellow (64/1) pronounced
Stigma red. This truss is similar to but not as good as "Album grandiflorum."

Rhododendron "Albert" Rose madder (23/3) center whitish
Truss: 3½" high and 6" wide; dense, round
16 flowers in truss; flower diameter 3"
Markings inside corolla: brownish

Rhododendron "Candidissimum" Rose madder (23/3)
Truss: 4" high and 6" wide; dense, rounded
12 flowers in truss; flower diameter 2¾"
Markings inside corolla: Citron green (763/3) few and inconspicuous

Rhododendron watereri Rose pink (427/1)
Truss: 5" high and 6" wide; dense, pyramidal
20 flowers in truss; flower diameter 2¾"
Markings inside corolla: brownish

Group III Pale Pink (General landscape effect)

Rhododendron "Anton" Roseine purple (629/2) fairly uniform
Truss: 4½" high and 6" wide; dense, pyramidal
18 flowers in truss; flower diameter 2½"
Markings inside corolla: greenish to brownish
Stamens and pistil pinkish; petals slightly frilled.

Rhododendron "Bella" Amaranth rose (530/2) uniform
Truss: 3" high and 5" wide; dense, rounded
14 flowers in truss; flower diameter 2½"
Markings inside corolla: Yellow ochre (o7)
Stamens and pistils pinkish; petal margins frilled.

Rhododendron "Duke of York" Amaranth rose (530/1) to whitish
Truss: 5½" high and 7" wide; loose, rounded
12 flowers in truss; flower diameter 3½"
Markings inside corolla: Uranium green (63/2)
7 petals in corolla; color at tip of petals only.

Rhododendron "President Lincoln" Phlox purple (632/3) uniform
Truss: 4½" high and 5" wide; dense, rounded
26 flowers in truss; flower diameter 2½"
Markings inside corolla: brownish
Stamens and pistil pinkish.

Rhododendron "Arno" Rose purple (533/1) to white in center
Truss: 4" high and 6" wide; dense, pyramidal
26 flowers in cluster; flower diameter 2½"
Markings inside corolla: Dahlia purple (931) prominent

MORE

Pink to Deep Pink (General landscape effect)

Rhododendron "Lady Armstrong" — Solferino purple (26/2)
Truss: 5″ high and 5½″ wide; dense, pyramidal
24 flowers in truss; flowers 2¾″ diameter
Markings inside corolla: Ruby red (827/3) few
Stigma red; style and stamens pinkish near tip.

Rhododendron "Henrietta Sargent" — Fuchsine pink (627/1)
Truss: 4″ high and 6″ wide; dense, rounded
14 flowers in truss; flowers 2¾″ diameter
Markings inside corolla: brown to greenish
Stigma red; styles and stamens pink.

Rhododendron "James Bateman" — Fuchsine pink (627/1)
Truss: 4″ high and 6″ wide; dense, rounded
18 flowers in cluster; flowers 3¼″ diameter
Markings inside corolla: Dahlia purple (931)
Stigma red; style and stamens Fuchsine pink

Rhododendron "Flushing" — Magenta (27/1)
Truss: 4″ high and 6″ wide; dense, rounded
18 flowers in truss; flowers 2¾″ diameter
Markings inside corolla: Dahlia purple (931)
Stigma and style red; stamens purplish

Rhododendron "Daisy" — Magenta (27/1)
Truss: 3″ high and 4½″ wide; dense, rounded
16 flowers in truss; flowers 2½″ diameter
Markings inside corolla: Barium yellow (503)
Stigma red; style and stamens pinkish. Blooms early. Petals slightly frilled.

Rhododendron "Ignatius Sargent" — Tyrian purple (727/2)
Truss: 3½″ high and 5″ wide; dense, rounded
14 flowers in truss; flowers 3″ diameter
Markings inside corolla: brownish, pronounced
Stigma nearly black, styles red, stamens pale pink, petals slightly frilled on margin.

Rhododendron "Desiderius" — Persian rose (628/1)
Flowers 2¼″ diameter
Markings inside corolla: Uranium green (63/2)
Stigma red; style and stamens pink; blooms early.

Rhododendron "Alarich" — Fuschia purple (28/1)
Truss: 3½″ high and 5″ wide; dense, rounded
20 flowers in truss; flowers 2¼″ diameter
Markings inside corolla: Dahlia purple (931) few, pronounced
Stigma nearly black; style and stamens purplish.

Rhododendron "Caractacus" — Fuschia purple (28/1)
Truss: 4″ high and 5″ wide; dense, rounded
18 flowers in truss; flowers 3″ diameter
Markings inside corolla: Citron green (763) not conspicuous
Pistil and stamens red.

Rhododendron "General Grant" — Fuschia purple (28/1)
Truss: 3″ high and 4½″ wide; dense, rounded
14 flowers in truss; flowers 2¼″ diameter
Markings inside corolla: Garnet lake (828) few
Stigma nearly black; stamens Fuchsia purple; style lighter.

Rhododendron "Kettledrum" — Roseine purple (629)
Truss: 3″ high and 4½″ wide; dense, rounded
14 flowers in truss; flowers 3″ diameter
Markings inside corolla: Citron green (763)
Pistil and stamens reddish.

MORE

PINK TO DEEP PINK (CONT'D.)

Rhododendron "Adelbert" Roseine purple (629) uniform
Truss: 4" high and 5½" wide; dense, rounded
22 flowers in truss; flowers 3" diameter
Markings inside corolla: Dahlia purple (931) pronounced
Pistil and stamens pinkish; margin of petals slightly frilled; almost identical with "Echse" except for color of stamens and pistil.

Rhododendron "Echse" Roseine purple (629) uniform
Truss: 5" high and 5½" wide; dense, pyramidal
18 flowers in truss; flowers 2¾" diameter
Markings inside corolla: Dahlia purple (931) pronounced
Stigma deep red, style and stamens white; margins of petals slightly frilled.

Rhododendron "Hannah Felix" Roseine purple (629)
Truss: 3" high and 4½" wide; dense, rounded
20 flowers in truss; flowers 2¾" diameter
Markings inside corolla: Beetroot purple (830/1) pronounced
Stigma red; style and stamens reddish; blooms early; color of flowers almost uniform except under corolla markings, where it is whitish.

Rhododendron "Bicolor" Roseine purple (629/1)
Truss: 4" high and 5½" wide; dense, rounded
22 flowers in truss; flower diameter 2½"
Markings inside corolla: Pansy purple (928/3)
Stamens and pistil pink.

Rhododendron "Mrs. C. S. Sargent" Roseine purple (629/1)
Truss: 4½" high and 6" wide; dense, rounded
17 flowers in truss; flowers 3¼" diameter
Markings inside corolla: Greenish
Pistil and stamens Roseine purple; petal margins frilled.

Rhododendron "Eva" Roseine purple (629/2)
Truss: 4" high and 5" wide; dense, rounded
22 flowers in truss; flower diameter 3"
Markings inside corolla: Citron green (763)
Stigma red; style and stamens pink; edge of petals frilled.

Rhododendron "Everestianum" Roseine purple (629/2)
Truss: 4½" high and 6" wide; dense, pyramidal
18 flowers in cluster; flowers 2½" diameter
Markings inside corolla: Greenish to brown
Pistil and stamens pinkish; petal margins slightly frilled.

Rhododendron "Mrs. Milner" Rhodamine purple (29/1)
Truss: 4" high and 5" wide; dense, pyramidal
16 flowers in truss; flowers 2½" wide
Markings inside corolla: Dahlia purple (931)
Stigma black; style and stamens Rhodamine purple.

Rhododendron "Parson Gofe" Rhodamine purple (29/2)
Truss: 5" high and 5" wide; dense, pyramidal
25 flowers in truss; flowers 2¾" diameter
Markings inside corolla: Chartreuse green (663) few
Stigma black; style red; stamens Rhodamine purple.

Rhododendron "Roseum elegans" Rhodamine purple (29/2)
Truss: 4" high and 5½" wide; dense, slightly pyramidal
20 flowers in truss; flower diameter 3"
Markings inside corolla; Chartreuse green (663) few
Markings not pronounced; center of flower white.

Rhododendron "Fee" Cyclamen purple (30/2)
Truss: 3½" high and 4½" wide; dense, rounded
20 flowers in truss; flower diameter 2½"
Markings inside corolla: Pansy purple (928) pronounced
Stamens and pistil reddish.

MORE

Group V Red to Reddish (General landscape effect)

Rhododendron "Charles Dickens" — Spiraea red (o25)
Truss: 4" high and 5" wide; loose-dense, rounded
16 flowers in truss: flowers 2¼" diameter
Markings inside corolla: Dahlia purple (931)
Pistil and stamens Spiraea red.

Rhododendron "Charles Bagley" — Fuchsine pink (627)
Truss: 5" high and 5½" wide; dense, pyramidal
18 flowers in truss; flowers 3" diameter
Markings inside corolla: Citron green (763)
Stamens and pistil pink.

Rhododendron "Norma" — Fuchsia purple (28)
Truss: 4" high and 5" wide; dense, rounded
18 flowers in truss; flowers 2¾" diameter
Markings inside corolla: Greenish
Stamens and pistil purplish; blooms early.

Rhododendron "Daisy Rand" — Rhodamine purple (29/1)
Truss: 3" high and 4½" wide; dense, rounded
15 flowers in truss; flowers 2½" diameter
Markings inside corolla: Dahlia purple (931) few
Stigma black; style whitish; stamens purplish.

Rhododendron "James MacIntosh" — Rhodamine purple (29/1)
Truss: 4" high and 5" wide; semi-dense, rounded
17 flowers in truss; flower 2¾" diameter
Markings inside corolla: Dahlia purple (931)
Stamens and pistil Rhodamine purple.

Rhododendron "Atrosanguineum" — Peony purple (729/2)
Truss: 2½" high and 4½" wide; loose, rounded
14 flowers in truss; flowers 2¾" diameter
Markings inside corolla: Dahlia purple (931)
Stamens and pistil Peony purple; blooms early.

Rhododendron "H. W. Sargent" — Peony purple (729/2)
Truss: 3" high and 4½" wide
14 flowers in truss; flowers 2¾" diameter
Markings inside corolla: Dahlia purple (931)
Stamens and pistil Peony purple.

Group VI Purple (General landscape effect)

Rhododendron "Lee's Purple" — Imperial purple (33/1)
Truss: 4½" high and 6" wide; dense, rounded
18 flowers in cluster; flower diameter 2¾"
Markings inside corolla: Brownish, conspicuous
Darkest purple of any varieties in this list.
Pistil and stamens red.

Rhododendron "Purpureum grandiflorum" — Imperial purple (33/2)
Truss: 4" high and 7" wide; dense, rounded
16 flowers in cluster; flower diameter 3"
Markings inside corolla: Citron green (763)
Stamens and pistil reddish.

Rhododendron "Purpureum elegans" — Amethyst violet (35/2)
Truss: 4" high and 6" wide; dense, rounded
16 flowers in truss; flower diameter 2¾"
Markings inside corolla: Citron green (763) prominent
Pistil reddish; stamens purplish.

Rhododendron "Melton" — Lilac purple (o31/1)
Truss: 3½" high and 5" wide; dense, rounded
14 flowers in truss; flower diameter 3¼"
Markings inside corolla: Maroon (1030)
Stigma black; stamens and style whitish.

Rhododendron "Mrs. Harry Ingersoll" — Lilac purple (o31/1)
Truss: 4" high and 5" wide; dense, pyramidal
14 flowers in truss; flower diameter 2½"
Markings inside corolla: Citron green (763)
Stigma whitish, stamens purplish. A whitish condition of petal underneath markings gives a unique color.

It will be noted that no varieties in this group are starred for being "the best." E. H. Wilson and many others have made such lists which may or may not be serviceable today. This article will have served its purpose well if it brings to the attention of rhododendron enthusiasts the very important fact that there is a striking similarity among the colors of many of these rhododendrons. Only a comparatively few varieties need be grown for general landscape purposes.

PP. 120-127 WYMAN – "ARNOLD ARBORETUM GARDEN BOOK"

CLASSES OR GROUPS OF RHODODENDRONS

Catawba Hybrids

These are perhaps the oldest and most common among the gardens of the Eastern United States. *Rhododendron catawbiense,* native in the southern Appalachian Mountains, was introduced into England in 1809, and shortly after was crossed with such tender species as the blood-red flowering *R. arboreum* from the Himalayas. These hybrids were backcrossed and also *R. ponticum* was used considerably. Today, some of the hardiest and most dependable clons for growing in the northeastern United States belong to this serviceable group of hybrids.

The Maximum Hybrid Rhododendrons

Rhododendron maximum is the hardiest native broad-leaved rhododendron in North America, yet not among the best ornamentals because its flowers appear after the young foliage has grown considerably so that the flowers are masked somewhat by the leaves. However, its vigor, hardiness and large size of leaves are desirable assets in a rhododendron, so it has been used in hybridization. One of the hybrids resulted from crossing it with *R. cinnamomeum,* known as "Cunningham's White" after the man who made the cross in 1850. This has not proved too hardy north of New York, but its vigor is unquestioned and it has been used extensively as an understock in grafting. This group of hybrids has not proved as important ornamentally as have the Catawba hybrids.

The Griffithianum Hybrid Rhododendrons

One of the largest flowered species of the Himalayan rhododendrons is *R. griffithianum,* and because of these large flowers (single flowers being 3–7″ in diameter) it has been used considerably in breeding work. The plant itself is not hardy in the northeastern United States, but it has been crossed with some of the Catawba hybrids, with *R. arboreum, R. fortunei* and several other species, and has yielded some interesting seedlings with these in turn yielding some interesting clons.

Fortune Hybrid Rhododendrons

Much has been written about the Fortune hybrid rhododendrons, and although they are not as attractive as the Griffithianum hybrids, they certainly are hardier, many of them thriving as far north as Cape Cod. *Rhododendron fortunei* is one of the hardiest of the Chinese rhododendrons, with larger flowers than those of most native American species. The late Mr. C. O. Dexter of Sandwich, Massachusetts, on Cape Cod, did considerable hybridizing in this group, some of his hybrids having flowers three to four and even five inches in diameter. It must be admitted however that the larger the individual flower in the cluster, the fewer the flowers, hence those hybrids with large individual flowers were not necessarily the most ornamental of the hybrids. There is opportunity for more hybridizing work with this species, possibly crossing it with some of the hardier Catawba hybrids in order to produce hardy progeny.

Caucasian Hybrid Rhododendrons

This is a very small group of hybrids represented in America by a mere dozen varieties, yet these are important because of their hardiness and early bloom. They are not quite as hardy as the Catawba hybrids, but some are grown in New England with protection. In this area these varieties are the first of the broad-leaved evergreen rhododendrons to bloom, appearing a full two weeks before the flowers of most Catawba hybrids. Some of the older varieties are "Venustum," "Nobleanum" and "Boule de Neige."

Many other evergreen species have been crossed and have resulted in progeny which can grow in the milder areas of the United States. The few hybrid groups mentioned are perhaps the largest though not necessarily the most important. The possibilities of making crosses in this large group of plants is almost limitless, and if increased hardiness is one of the objectives (*i.e.,* to produce varieties hardy in the northern United States) then there are many opportunities yet waiting for some enterprising plant breeder to explore.

MORE

The following azaleas and rhododendrons should not be considered "the best" by any manner of means. Others have proved just as good and still others may prove better. Groups like the "Belgian Forcing," "Rutherfordiana" "Macrantha Hybrids," "Sander Azaleas" and the recent "Glenn Dale Hybrids" (now being planted in large numbers in the National Arboretum at Washington, D. C.) all have an important place in American horticulture. However, the ones selected have all been grown successfully in this country and are among the best now being grown. They are all worthy subjects for the garden. The amateur or new professional gardener would do well to confine his first selections to this list. As he becomes more interested and more experienced in the group he may have the patience, knowledge, time, space and money to experiment with the hundreds of others which are also available. (In many cases the flowers of these species and varieties of azaleas and rhododendrons have been matched with the colors of the Horticultural Colour Chart, to which many of the color names and figures in parentheses refer.)

Rhododendron albrechti 4½′ **Zone 5** **Albrecht Azalea**

*FLOWERS: rose bengal (25/2), 2″ in diameter
TIME: mid-May
AUTUMN COLOR: yellow
HABITAT: Japan
INTRODUCED: 1892

A very interesting azalea, not yet commonly grown, with flowers a unique red to rose color, without any of the lilac or purple-red that is common in so many of the earlier blooming species.

Rhododendron arborescens 9′ **Zone 4** **Sweet Azalea**

*FLOWERS: white, very fragrant
TIME: mid-June
FOLIAGE: bright green
AUTUMN COLOR: dark glossy red
HABITAT: southern Pennsylvania to Georgia, chiefly in mountains

An unusually fragrant species, blooming near the end of the azalea sequence. Even though the flowers do appear after the leaves, they are conspicuous and their delicious fragrance makes them useful in mass plantings.

Rhododendron calendulaceum 9′ rarely 15′ **Zone 5** **Flame Azalea**

*FLOWERS: yellow or orange to scarlet
TIME: early June
HABITAT: Pennsylvania to Georgia, west to Ohio and Kentucky
VARIETIES:
croceum—flowers 2″ diameter, orange buff to cadmium orange
aurantiacum—flowers 2½″ diameter, orange to scarlet

This is the most showy of the native American species and is among the best for northern gardens. It has the unique property of retaining its colorful flowers in good condition in full sun for nearly two full weeks. The flowers of many Asiatic azaleas quickly fade in direct sun and so must be used with partial shade if they are to be enjoyed for a longer period. When large numbers of seedlings are grown it is noticed that the flower colors vary from yellow (orange buff 507 to cadmium orange 8) to scarlet (19). The lighter colored forms have been given the varietal name *croceum*, and the red-colored types the varietal name *aurantiacum*. Since very few azaleas are in flower at the time this species blooms, this variation in color is most helpful in making an interesting display—when planted singly and in groups in an open oak woods, there is nothing at this time of year that is more colorful.

Rhododendron canadense 3′ **Zone 2** **Rhodora**

*FLOWERS: rose-purple
TIME: mid-May
FOLIAGE: dull bluish green
HABITAT: Newfoundland and Labrador to central New York and Pennsylvania
VARIETY: *albiflorum*—white flowers

Native of New England, commonly found in moist places, it is valued for its early flowers (before the leaves appear) especially in naturalistic plantings. Its flowers are smaller than those of many Asiatic and American species and from the standpoint of massive display when in bloom, it is inferior to many species. However, when planted by itself in bog gardens or a moist part of the rockery, it can easily earn its space for its early spring interest.

MORE

Rhododendron carolinianum 6′ **Zone 5** **Carolina Rhododendron**

*FLOWERS: pale rosy purple
TIME: mid-May
*FOLIAGE: evergreen, leaves brown on underside to 3″ long
HABITAT: North Carolina
VARIETY: *album*—flowers white or nearly white

The first of the northern evergreen rhododendrons to bloom, this little species makes a splendid showing. When grown from seed, the plants will range in flower color from pure white to a deep rose—excellent for use in any garden. Plants of this species are compact in habit, generally rounded in outline and good as individual specimens or when planted together in masses. In winter it is the first rhododendron to "roll" its leaves when temperatures reach about 15° F. and lower, a natural method of protection from severe cold but detracting somewhat from its beauty.

Rhododendron catawbiense 6′ rarely to 18′ **Zone 4** **Catawba Rhododendron**

*FLOWERS: lilac-purple spotted olive-green
TIME: early June
*FOLIAGE: evergreen, leaves to 5″ long
HABITAT: Virginia to Georgia
VARIETIES:
album—flowers white, 2¼″ diameter with yellow markings
compactum—dense compact habit of growth

The Catawba Rhododendron is a spreading evergreen shrub, usually about 6′ tall, which grows extensively in the southern Allegheny Mountains. The flowers are profusely borne and frequently clothe the entire plant with color, since they appear before the new leaves are fully developed. The only point which can be mentioned against it is that its lavender-colored flowers are not all that might be wished for. However, the variety *album*, with white flowers, can be considered one of the best of all the rhododendrons for garden ornament. Also this species has been considerably used in hybridizing so that many garden hybrids are available, having the excellent foliage characteristics of *R. catawbiense*, and the better flower colors of other parents.

Catawbiense Hybrids (see page 253) (hardy in Boston)

"Albert"—flowers pure white to pastel lilac (437/2), brown markings, 3″ dia.
"Album Grandiflorum"—flowers white with faint lavender tinge, 2⅝″ diameter.
"Arno"—flowers double, white inside petals and mallow-purple edge, purple markings, 3⅜″ diameter.
"Atrosanguineum"—flowers spiraea-red (025/1), purplish markings, 2⅝″ diameter.
"Charles Dickens"—flowers tyrian-purple (727/3), dark red markings, 2¼″ diameter.
"Everestianum"—flowers rosy lilac with frilled edges of petals
"F. L. Ames"—flowers fuchsia-purple (28/1–28/2), mustard-colored markings, 3¼″ diameter.
"Henrietta Sargent"—flowers persian-rose (628/1), brownish markings, 2⅝″.
"Kettledrum"—flowers magenta (27/1), yellow markings, 2⅝″ diameter.
"Lady Armstrong"—flowers fuchsine-pink (627/1), purple markings, 2½″ diameter.
"Mrs. C. S. Sargent"—flowers persian-rose (628/1), yellowish green markings, 3⅜″ diameter.
"President Lincoln"—flowers amaranth-rose (530/2), reddish orange markings, 2½″ diameter.
"Purpureum Elegans"—flowers bishop's violet (34/2), orange-brown markings, 3″ diameter.
"Purpureum Grandiflorum"—flowers imperial-purple (33/1), reddish orange markings, 2¼″ diameter.
"Roseum Elegans"—flowers fuchsia-purple (28/2), greenish markings, 2¼″ diameter.

Caucasian Hybrids (see page 254)

"Boule de Neige—flowers white, 2½″ diameter, greenish markings
"Goldsworth Yellow"—flowers apricot
"Nobleanum"—flowers scarlet
"Venustum"—flowers rose-red

MORE

Rhododendron decorum 18′ Zone 5 Sweetshell Rhododendron

*FLOWERS: white to pink
TIME: early June
*FOLIAGE: evergreen, leaves 6–9″ long
HABITAT: western China
INTRODUCED: 1904

A rhododendron with fragrant waxy flowers, preferring light shade and some protection at the northern limits of hardiness. It is being grown in gardens on both Atlantic and Pacific coasts.

Rhododendron fortunei 12′ Zone 6 Fortune Rhododendron

*FLOWERS: rosy lilac or blush, fragrant (CAREFUL!)
TIME: late May
FOLIAGE: evergreen, light green, leaves to 8″ long
HABITAT: eastern China
INTRODUCED: 1859

This Chinese rhododendron has earned a permanent place in American horticulture. The individual flowers are as much as 3½″ or more in diameter. A few varieties are hardy as far north as Boston, but on Long Island and farther down the Eastern Seaboard and on the West Coast it is a decided asset in any rhododendron planting. The delicate colors, large size and fragrance of the flowers. make it an ideal subject for hybridization and many hybrids are available. One, the "Duke of York," is growing perfectly at home in a protected spot at the Arnold Arboretum. It blooms just after *R. carolinianum* and just before the *R. catawbiense* hybrids, making it almost an essential if continuous rhododendron bloom is desired.

Fortunei Hybrids (see page 254)

"Duke of York"—flowers pastel lilac-pastel mauve (437/1–433/2) 3½″ diameter.
"Essex Scarlet"—flowers deep crimson
"Luscombei"—flowers rose-pink
"Ernest Gill"—flowers, rose-carmine
"Sunset"—flowers pale yellow, shaded pink
Many new seedlings originated by the late C. O. Dexter of Sandwich, Mass.

x Rhododendron gandavense 6–10′ Zone 4 Ghent Azalea

*FLOWERS: white—pink—red, single and double
TIME: late May
HYBRID ORIGIN: *R. luteum x R. mortieri*
ORIGINATED: before 1890

Many hybrids of mixed ancestry, some of which are hardy as far north as central Maine. A bright-colored ornamental group, some of the better varieties are:

Flowers Single

"Altaclerense"—orange-yellow
"Beaute Celeste"—scarlet
"Bijou des Amateurs"—dawn-pink (523)
"Charlemagne"—Chinese coral (614) to orange (12), prominent stamens—flowers 2″ diameter
"Coccinea Speciosa"—saturn red (13–13/1) filaments red, flowers 1¾″ diameter
"Comte de Flandre"—carmine (21)
"Cymodece"—dawn-pink (523) with orange markings, flowers 2½″ dia.
"Daviesi"—white, blotched yellow
"Flamboyant"—orange
"Furst Camille von Rohan"—bud chrome-yellow; flowers white with yellow markings, flowers 2½″ diameter
"General Trauff"—rose-shaded orange
"Gloria Mundi"—fire-red (15/1) upper petal orpement-orange, flower 2″ diameter
"Heureuse Surprise"—white, shaded rose
"Irene Koster"—dawn-pink (523/1–523/3) with prominent yellow markings
"Nancy Waterer"—yellow
"Pallas"—jasper-red (18–18/2) with markings of Indian yellow on upper corolla. flower 1¾″ diameter
"Pucelle"—neyron-rose (623/3) with cadmium-orange markings, flowers 2″ diameter
"Unique"—bronze

Flowers Double

"Bijou de Gentbrugge"—white, flushed pink
"Graf von Meran"—neyron-rose (623/3) and white in center
"Narcissiflora"—sulfur-yellow (1)
"Raphael de Smet"—white, flushed pink
"Souv. de Pres. Carnot"—cadmium-orange (8–8/2) and brick-red (016)' flowers 1½″ diameter

MORE

Rhododendron griffithianum Hybrids (see page 254)

"Beauty of Littleworth"—flowers white
"Coombe Royal"—delicate pink flowers
"Countess of Derby"—rose-pink flowers
"Gill's Crimson"—crimson flowers
"Isabella Mangles"—soft pink flowers
"Loderi"—white or shell-pink in several shades
"Queen o' the May"—white flowers

Rhododendron japonicum 6′ Zone 5 Japanese Azalea

*FLOWERS: orange-red or salmon-red to brick-red, flowers 2–3″ diameter, with obnoxious odor
TIME: late May
HABITAT: Japan
INTRODUCED: 1861

An azalea that should not be in the foundation planting about the house if its obnoxious odor would be a drawback, since the odor is on a par with that of a skunk, although not so penetrating. However, it does have large flowers and is very hardy, being used considerably in breeding work because of these features. Otherwise its vigorous habit and profuse colorful flowers make it a prominent part of any garden when it is in bloom.

Rhododendron keiskei 8′ Zone 5 Keisk Rhododendron

*FLOWERS: mimosa yellow, 602/2, 1¼″ diameter
TIME: mid-May
*FOLIAGE: evergreen, leaves to 2¼″ long
HABITAT: Japan
INTRODUCED: 1905

Interesting in flower because it is one of the very few evergreen rhododendrons with flowers of this delightfully pale yellow color. It might well be used in breeding work.

x Rhododendron kosterianum 5′ Zone 5 Mollis Hybrid Azaleas

*FLOWERS: large, yellow to red with many combinations
TIME: late May
HYBRID ORIGIN: *R. molle* x *R. japonicum*
ORIGINATED: 1872

Mostly crosses between the Chinese *R. molle* (yellow) and the Japanese *R. japonicum* (red to yellow) but recently other mixed parentage has crept in. These hybrids are not as hardy as the Ghent hybrids because of the tender *R. molle* as one of the parents, and hence the varieties (except "Miss Louisa Hunnewell") are not much used. "Miss Louisa Hunnewell" if propagated asexually is an excellent hybrid. A few of the better varieties are:

"C. B. Van Nes"—flowers, fire-red
"Comte de Gomer"—flowers, soft red
"Comte de Papadopoli"—flowers rose, shaded orange
"Comtesse de Kerchove"—flowers pale pink or orange
"Consul Ceresole"—flowers porcelain-rose (620/1); 3½″ diameter
"Hugo Koster"—flowers poppy-red (16/2) with orange markings; 2¾″ diameter
"Miss Louisa Hunnewell"—flowers orange-yellow (7); 3″ diameter
"Otto Lilienthal"—flowers ivory-white
"Phidias"—flowers double, light pink and yellow
"Snowdrift"—flowers white

x Rhododendron laetevirens 4′ Zone 4 Wilson Rhododendron

*FLOWERS: pink to purplish, 1″ diameter
TIME: early June
*FOLIAGE: evergreen, light green, leaves to 3½″ long
HYBRID ORIGIN: *R. carolinianum* x *R. ferrugineum*

A small-flowered, comparatively low-growing rhododendron that cannot compare favorably with the large-flowering types, but for a neat, small evergreen plant in the foundation planting, or in a partly shaded spot in the rock garden, it has merit.

Rhododendron lapponicum 1½′ Zone 2 Lapland Rhododendron

FLOWERS: purple, ½″ diameter, bell-shaped
TIME: June
FOLIAGE: evergreen, leaves to ¾″ long
HABITAT: mountains of North America, northern Europe, northern Asia

A prostrate shrub of very fine texture, well suited for a place in the rock garden or in the foreground of an ericaceous evergreen foundation planting.

MORE

Rhododendron maximum 12–36′ Zone 3 Rosebay Rhododendron

FLOWERS: rose-colored to purple-pink, spotted olive-green to orange
TIME: late June
*FOLIAGE: dark green, evergreen, leaves 5–10″ long
HABITAT: eastern North America
VARIETIES:
album—flowers white
purpureum—flowers deep pink to purple

This native species is perhaps the hardiest of all the evergreen rhododendrons, and certainly the tallest and most treelike of those hardy in the North. Its flowers are not as large as those of *R. catawbiense* but are free of the objectionable magenta color. They appear after the leaves of the current year's growth are well expanded. This new foliage hides the flower clusters to a considerable degree. The Rosebay Rhododendron then, is of value for its hardiness, for its tall habit of growth, for its long leaves, but when flowers alone are considered, there are many species and hybrids far more satisfactory. It requires semi-shade to do well and is frequently used in gardens in the northern United States merely as an evergreen background for more ornamental plantings.

Rhododendron maximum hybrids (see page 254)

"Cunningham's White"—flowers white (*R. maximum* x *R. cinnamomeum*)
"Album elegans"—flowers white, 2¾″ diameter
"Anna L. Lamb"—mallow-purple flowers (630/2) 3½″ diameter
"Wellesleyanum"—flowers white, tinged pink (*R. maximum* x *R. catawbiense*)

Rhododendron mucronatum 6′ rarely 9′ Zone 5 Snow Azalea

*FLOWERS: white, 2″ in diameter, fragrant
TIME: early May
FOLIAGE: much branched, evergreen or half evergreen, but a poor grayish green color
HABITAT: Japan
INTRODUCED: 1819
VARIETIES:
amethystinum—flowers pale lilac-purple spotted faintly pink
narcissiflorum—flowers white, double, introduced about 1850
plenum—flowers rose-purple, double, introduced 1819

The Snow Azalea is the hardiest white-flowered evergreen azalea, but only from Long Island south is it a serviceable and dependable plant. Its large white blossoms, and usually low habit of growth make it an excellent species to use in conjunction with the more brilliant Kurume types. The more or less grayish green foliage is not conducive to making the plant ornamental for its evergreen foliage alone. The varieties are useful for their bright-colored blossoms.

Rhododendron mucronulatum 6′ Zone 4 Korean Rhododendron

*FLOWERS: pale rosy purple
TIME: mid-April
AUTUMN COLOR: yellow to bronzy crimson
HABITAT: north China, Manchuria, Korea, Japan
INTRODUCED: 1882

To many a gardener this appears to be an early flowering azalea, but actually it is one of the very few deciduous rhododendrons. The difference is merely academic for it is the first of all the rhododendrons and azaleas to bloom, commencing in New England during mid-April, but in Seattle often as early as the latter part of January. Because it blooms so early, the flowers may be killed by freezing weather, hence it might well be planted on a northern slope or some shaded spot where warm sun does not force the flowers to open prematurely. This earliness of blossom is enjoyed in some areas, but in others where late freezes are characteristic it might be inadvisable to plant this species. Local conditions in early spring or late winter, then, should be the deciding factor as to whether or not this species is used.

Rhododendron nudiflorum 6′ Zone 3 Pinxterbloom

*FLOWERS: light pink (phlox-pink 625/3), white before leaves, 1½″ diameter
TIME: late May
HABITAT: Massachusetts to North Carolina to Ohio

A native azalea—often called "Wild Honeysuckle" found over a large part of the eastern United States. A closely related species *R. roseum* has flowers that are more deeply colored.

MORE

Rhododendron obtusum 3′ Zone 6 Hiryu Azalea (CAREFUL!)

*FLOWERS: orange-red to bright red, varying considerably
TIME: mid-May
FOLIAGE: much branched, half evergreen to evergreen, leaves ½–1″ long
AUTUMN COLOR: reddish
HABITAT: Japan
INTRODUCED: about 1844

This azalea, sometimes prostrate, is not a meritorious ornamental in its own right, but is of interest for its many and valuable ornamental varieties, of which the following are examples:

amoenum—flowers double (hose in hose) rich magenta
Introduced 1850, Zone 5, the flower color is very difficult to use in combination with others. The leaves are slightly less than an inch long.

arnoldianum—flowers single, phlox-pink 625/1, Zone 4—A cross, *amoenum* x *kaempferi*, it is similar to *amoenum* except that it grows taller and is hardier. The flowers too are a better color, being a rich, rosy mauve to red. It originated as a chance seedling in the Arnold Arboretum in 1910 and now there are several named clons of this cross that have been distributed in the trade, chiefly dark red (crimson 22/1 to magenta 27/2) flowers 1½″ diameter.

"Hinodegiri"—flowers rose-madder 23/7, Zones 5–6. Not as hardy as *amoenum* but a much better crimson color, flower 1⅝″ diameter. The foliage of both plants is superior to that of *R. mucronatum*. In fact, *amoenum* is used extensively as a clipped hedge for its small leaves and dense twiggy growth make it just right for this purpose.

kaempferi—flowers single, porcelain-rose 620, 2⅜″ diameter. Zone 5—Torch Azalea. The Torch Azalea is the common mountain azalea of Japan. Although it has been known for a very long time, it first appeared in the United States when Professor Sargent brought seeds to the Arnold Arboretum in 1892. Since that time it has grown splendidly and has proved to be the best bright red azalea for northern gardens. The Arnold Arboretum now has hundreds of these plants on its hillsides and, when in bloom, they make a better display than any other azalea. In places the woods look almost as if they were afire, the color is so vivid. Because the flowers may be injured by the hot sun, it is advisable to plant them in slightly shaded places, and they do well in heavy shade. Some of the plants are considerably over 5′ tall and may eventually attain a height of 10′ to 12′ with a correspondingly broad spread.

In New England the plants are partly deciduous, but farther south the leaves of *R. obtusum* varieties (except variety *kaempferi* which is wholly deciduous) are retained throughout the winter. The flowers of variety *kaempferi* range in color from salmon to a brick-red.

Kurume Azaleas—Zones 6–9 (see page 251)

The Japanese have developed and crossed the varieties of this species for centuries so that the general term "Kurume Azaleas" includes a large number of forms, which are greenhouse plants but many of which can be grown out of doors with some protection as far north as New York City. Possibly 50 named varieties are being grown in this country today. Some of the better varieties are:

"Apple Blossom"—flowers white, tinged pink
"Benigiri"—flowers deep red
"Christmas Cheer"—flowers brilliant red, double
"Coral Bells"—flowers shell-pink, shaded, double
"Daybreak"—flowers deep rose
"Fairy"—flowers almond-blossom pink
"Orange Beauty"—flowers orange to pink
"Peach Blossom"—flowers rose
"Pink Pearl"—flowers deep pink, double
"Prudence"—flowers white
"Salmon Beauty"—flowers salmon-pink, double
"Snowflake"—flowers white, double
"Sunbeam"—flowers salmon
"Vesuvius"—flowers brilliant salmon-red

(CAREFUL!)

Rhododendron racemosum 2–6′ Zone 5 Mayflower Rhododendron

*FLOWERS: numerous few-flowered clusters, rhodamine pink (587), flowers ⅝″ diameter
TIME: mid-May
*FOLIAGE: evergreen, leaves to 1½″ long
HABITAT: western China
INTRODUCED: 1889

A delightful early-flowering rhododendron with small numerous clusters of flowers especially adapted for planting in the rockery or some similar spot where a light winter cover can be given if necessary. A splendid shrub for massing, probably even better when used this way than when used as an individual specimen.

Rhododendron roseum 9′ Zone 3 Roseshell Azalea

*FLOWERS: fragrant, corolla, bright pink (neyron-rose 623/1) 2″ in diameter
TIME; late May
FOLIAGE: dull bluish green
HABITAT: northeastern North America

A bright-colored native species with fragrant flowers, for many years considered a form of *R. nudiflorum*. Because of its color and fragrance (the flowers of *R. nudiflorum* are odorless) this species can be considered superior.

AAL MORE 50

Rhododendron schlippenbachi 15′ Zone 4 Royal Azalea

*FLOWERS: fragrant, rose pink (427/1 to 427/3), 3″ in diameter
TIME: mid-May
*AUTUMN COLOR: yellow, orange and crimson
HABITAT: Korea, Manchuria, Japan
INTRODUCED: 1893

A handsome azalea because of its good growth habits and general appearance. It has very large flowers and is fortunate in being in the group with colorful autumn foliage. These are two important reasons for including it in the garden.

Rhododendron smirnowi 6–18′ Zone 4 Smirnow Rhododendron

*FLOWERS: many, corolla white to rosy red
TIME: late May
*FOLIAGE: evergreen, leaves to 6″ long
HABITAT: Caucasus
INTRODUCED: 1886

Perfectly hardy as far north as Boston, this dense rhododendron makes a good ornamental not only for its large flowers but also because the undersurfaces of the leaves are covered with a conspicuous white, woolly tomentum that adds to its attractiveness. Because of this woolly undersurface, the plant is not infested with lace bug—an important maintenance item. Sometimes the flowers have corollas with a wavy margin which is another desirable characteristic. All in all this species, though little used yet in American gardens, can well be added to an ever lengthening list of worthy rhododendrons.

Rhododendron vaseyi 6–9′ Zone 4 Pinkshell Azalea

*FLOWERS: light rose
TIME: mid-May
*AUTUMN COLOR: light red
HABITAT: North Carolina
VARIETY: *album*—flowers white

This native azalea is one of a very few with colorful autumn foliage in the fall, hence it has two seasons of interest in gardens. It does well in moist situations bordering ponds where its delicate pink flowers can be reflected in the water, or it will do well on drier soils. One of the best of the native azaleas.

Rhododendron viscosum 9′ rarely 15′ Zone 3 Swamp Azalea

*FLOWERS: corolla white or suffused with pink, very fragrant
TIME: early July
AUTUMN COLOR: orange to bronze
HABITAT: Maine to South Carolina

The last of the azaleas to bloom, the Swamp Azalea is particularly at home in swampy situations, where its white fragrant flowers scent the air for some distance.

Rhododendron yedoense 5′ Zone 5 Yodogawa Azalea

*FLOWERS: spotted, cyclamen purple 30/2, 2″ diameter, double, 12 petals
TIME: mid-May
FOLIAGE: dark green
AUTUMN COLOR: purplish
HABITAT: Korea and Japan
INTRODUCED: 1884
VARIETY: *poukhanense*—compact low shrub, but in shady places to 6′—flowers single, fragrant, petunia-purple 32/2, 1⅜″ diameter, with red markings. Korea, introduced 1905, Zone 4—flowering freely when quite small—blooms mid-May.

It is interesting to note that the double-flowered species was found first and given the specific name. Twenty years later the single-flowered form was discovered and a varietal name was designated for this. Both azaleas have reddish purple flowers that are very difficult to plant adjacent to red-flowering species since the colors clash. These plants can be used in conjunction with the pale, lemon-yellow colored *Cytisus praecox* which blooms at the same time, an excellent color combination.

Both the double-flowered species and its single-flowered variety are compact shrubs, dense and comparatively low. The species appears to be the less desirable as an ornamental because the flowers are not as numerous as are those on the variety. In massed plantings, these plants grow so closely together that they cover the soil completely.

Other Evergreen Rhododendron Species

There are actually hundreds of other rhododendrons that can be grown in the warmer parts of the United States (Zones 7–10) especially in the Pacific Northwest where the growing conditions are ideal and the summers are not too hot.

PP. 253-271
"SHRUBS AND VINES FOR AMERICAN GARDENS"
-WYMAN- 1961.

RECOMMENDATIONS OF GLENN DALE AZALEA VARIETIES FOR SMALL GARDENS OF AMATEURS

BY
DR. ROY MAGRUDER

Selected for (1) their foliage retention through the winter (evergreen) (2) dense, compact plant habit requiring little or no pruning (3) slowness of growth (4) abundance and quality of flowers (5) adaptation to the Washington, D. C. area.

WHITE

Helen Close, GD,S., Low, Mid-Season
Moonbeam, GD,S., Med., Mid-Season
Snowscape, GD,S., Med., Late
Swansong, GD,S., Med., Late
Wavelet, GD,S., Med., Late

WHITE-SECTERED, STRIPED OR SANDED LAVENDAR TO PURPLE

Acrobat, GD,S., Low, Mid-Season
Allegory, GD,S., Med., Mid-Season
Memento, GD,S., Med., Mid-Season
Prodigal, GD,S., Low, Mid-Season
Trinket, GD,S., Med., Mid-Season
Zephyr, GD,S., Med., Late

WHITE-SECTERED, STRIPED OR SANDED PINK TO RED

Defiance, GD,S., Med., Mid-Season
Helen Fox, GD,S., Low, Mid-Season
Presto, GD,S., Med, Mid-Season

LIGHT PINK

Celestial, GD,S., Low, Mid-Season
Fawn, GD, S., Med., Mid-Season
Reward, Gd, S., Low, Early

SALMON PINK

Swashbuckler, GD,S., Med., Mid-Season

DEEP PINK TO ROSE

Carbineer, GD,S., Med., Mid-Season
Corsair, GD,S., Med., Late
Corydon, GD,S., Low, Late
Cranford, GD,S., Low, Late
Eros, GD,S., Med., Mid-Season
Pearl Bradford, Gd,S., Low, Late

ROSE RED

Firedance, GD,S., Med., Mid-Season

DEEP RED TO ORANGE RED

Grandee, GD,S., Low, Mid-Season
Greeting, GD,S., Low, Early
Kashmir, GD,S., Tall, Early

ORANGE

Buccaneer, GD, S., Med., Early

MAROON OR BROWNISH RED

Kobold, GD,S., Med., Mid-Season
Trouper, Gd., S., Tall, Early

LAVENDAR

Matins, GD,S., Med., Mid-Season
Merlin, GD, S., Med., Mid-Season
Simplicity, Gd, S., Tall, Early

PURPLE

Boldface, GD, S., Med., Mid-Season

U. S. National Arboretum
Washington, D. C. 20002
January 24, 1973

R. campylogynum—xx, H–2. A dwarf, spreading shrub, eventually reaching 1 to 1½ feet in height. The leaves are small and an attractive shade of green. The flowers are also small, bell-shaped, and rosy purple in color.

R. camtschaticum—x, H–2. This is a novelty for the rock garden, seldom reaching more than 1 foot in height. It is deciduous, and the reddish-purple flowers stand erect above the foliage. It is quite hardy, as the name would indicate.

R. carolinianum—xx, H–2. This native of our own Southeast is one which should be grown much more extensively. It will reach a height of about 3 feet in ten years, at which time it will have spread to a width of at least 5 or 6 feet. The rather small flowers are borne in profusion. The type is rosy purple or pink, but there is a white form which produces flowers that are white to very light pink in color. As with most species, some seedlings are much more attractive than others, and more selecting of good forms should be done. Its relative hardiness—although not quite as hardy as the following—and other good characters recommend it to gardeners almost anywhere rhododendrons can be grown.

R. catawbiense—x, H–1. This is another native species, covering square miles of hillside in the Blue Ridge Mountains. The rhododendron fancier may not think too much of it, because of its lilac-purple flowers, and as a specimen plant it is not very useful. However for planting in the background or in the edge of a woods, where it may be viewed at a little distance, it has a real place. Its extreme hardiness permits it to be grown where most other rhododendrons will fail. It is one of the parents of most of the old, hardy hybrids, and is responsible for their ability to resist low temperatures. Many thousands of plants have been collected from the wild and sold throughout the East. Selected nursery-grown forms would undoubtedly give better satisfaction, as many of the collected plants have had poor root systems, and either died or were slow in becoming established.

R. chryseum—xx, H–2. Yellow is rather rare in the dwarfs, and this is one of the best, although the color is usually a rather light yellow. It will reach little more than 1 foot in height in ten years. I have seen it used very effectively with some of the blue-flowered dwarf hybrids and species.

R. impeditum—xxx, H–2. An attractive rock garden plant with purplish-blue to mauve flowers, this little rhododendron at ten years will be not much over 1 foot in height. It is good not only for the rock garden but as a border plant in front of larger shrubs. Its hardiness and general desirability have made it one of the most familiar of the dwarf species.

R. keiskei—xxx, H–2. There are two distinct types of this species being grown in American gardens at the present time. At least it is presumed that they are the same species, although one is a very distinct dwarf and the other is a more upright type that will reach around 3 feet in ten years. Both have a rather attractive, light-yellow flower, appearing early in the spring. The dwarf *R. keiskei,* in my opinion, is a very valuable plant. It makes a little rounded mound, which probably will not get much taller than 1 foot. The foliage is good, and the plant is hardy in the vicinity of New York City. This species comes as nearly true from seed as any I have seen. We will undoubtedly hear more of this dwarf form.

R. keleticum—xxx, H–2. The name means "charming," which well describes this spreading, dense-growing little rhododendron. It will reach a height of about 1 foot or less in ten years. The flowers are wide open, resembling in size and shape the flowers of a pansy. The color is purplish crimson with crimson spots. The flowers stand up singly above the foliage, flower and stem on young plants often reaching to double the height of the foliage. Very desirable for the rock garden.

R. macrophyllum—x, H–2. This is the native rhododendron along the West Coast and on some of the foothills of the mountains in the Pacific Northwest. The color is pale rose to purplish rose, and only moderately attractive. Most rhododendron fanciers would not include it in their collection for its flowers. However in the coastal areas of the Northwest, many plants transplanted from the wild have developed into rather striking, large, late-blooming shrubs. Frequently seen as specimen plants, it would seem that they are best fitted for background or light woodland use. Although rated rather hardy, it is quite possible that some of the seaside strains may be moderately tender.

R. maximum—x, H–1. Shade-tolerant and hardy, this species, native to the eastern United States, makes an attractive shrub, up to 5 or 6 feet in height in ten years. The flowers are pale pink to deep pink, and the leaves tend to develop before the late-opening flowers appear, which detracts from its value as a flowering shrub. For woodland planting in very cold areas, it is quite useful.

R. micranthum—x, H–1. The tiny white, spirea-like flowers may cause some rhododendron fanciers to treat this as a "poor relation." However for border planting or mass planting in relatively cold climates, it is worth consideration. Size will run up to 4 feet in ten years.

R. mucronulatum—xx, H–2. There are relatively few deciduous rhododendrons, and none more commonly grown than this. Its hardiness and very early blooming have made it a popular subject over most of the rhododendron-growing part of the United States. The bright, rosy purple flowers appear in very early spring, or in midwinter in mild climates, and make a very attractive sight, as they appear well before the leaves. A selected form has been given the clonal name 'Cornell Pink.'

R. racemosum—xxxx, H–2. Of all the species rhododendrons, this is probably grown as widely and has proven as satisfactory as any. It starts out as a rather dwarf shrub, but might reach a height of 3 feet in ten years. However it may keep on stretching up and reach 4 or 5 feet eventually, unlike some other dwarfs which make a fairly rapid growth when young, but increase in stature hardly at all after they reach blooming age. This little species starts to bloom almost the first year, and never lets up, and apparently does not let its blooming interfere with a reasonably vigorous growth. The flowers are rather small, mostly deep pink to a fairly light pink or almost white. They are produced very profusely, and the over-all effect is of a very attractive, dainty little shrub. It is very easily grown, and resistant to unfavorable growing conditions. Some strains have been selected for hardiness, and so it can be grown over a rather wide climatic range. Other strains have been selected for dwarfness, but even the more rapidly growing plants stand pruning well and may be kept quite small.

R. rubiginosum—xx, H–2. Somewhat similar to *R. desquamatum,* but this species has slightly narrower leaves. The rosy lilac flowers and dark-green foliage make it an attractive plant for the back part of the shrub border.

R. russatum—xxxx, H–2. This is a rather upright-growing, small shrub with deep rosy-purple to blue-purple flowers, usually with a white throat. It may reach 3 feet in ten years.

R. smirnowii—x, H–2. This is a very hardy species, which has been used to some extent in breeding for hardiness. It is, however, an attractive shrub in its own right. The leaves are densely covered below with a woolly, whitish to pale-brown indumentum. The flowers, on good forms, are pinkish to purplish rose, rather dainty and attractive in general appearance. For the colder gardens this is a species to consider.

RHODODENDRON VARIETIES FOR MANY PURPOSES

Blue Peter—xxx, H–2. Although well liked in the Pacific Northwest, 'Blue Peter' is also hardy enough to be grown in many places in the East. It is pale lavender-blue, with a deep blotch. The flowers are slightly crinkled and very attractive. The leaves are very dark, lustrous green. The young plants are a bit open and spreading, but usually develop into a nicely shaped plant.

Christmas Cheer—x, H–2. Here we have a plant which has only a fair-sized flower, of a light pink color, which certainly would attract little attention during the normal blooming season. However it is relatively hardy, and tends to bloom extremely early. In the Northwest it will frequently start blooming in late fall, and may show flowers any time during the winter when the temperature is relatively high. There is another very similar variety, 'Rosamundi,' and it is quite possible that these two are sometimes interchanged in the nursery. The plant of either of these varieties is rather slow-growing, and will reach only about 4 feet in ten years.

Cynthia—xx, H–2. This variety, introduced about a hundred years ago, is still a favorite in many localities. Some nurseries state that it is their best seller. It is rosy crimson in color. The growth is rather open and spreading, although old specimens fill up a bit and make rather nice-looking plants. On young plants the branches tend to break off easily. In ten years 'Cynthia' should reach at least 6 feet in height, so it is obviously a plant for the extensive shrub border, or for background planting, and not one for foundation planting under a low window.

Fastuosum Flore Pleno—xx, H–2. Another very old variety, this was for many years the only double-flowering rhododendron, although more recently various breeders have produced a few varieties that are double. The color is mauve, but hardly that shade which many people feel to be undesirable in rhododendrons. The bush grows fairly rapidly, and should be placed toward the back of the shrub border. In my experience it has had good keeping qualities as a cut flower, the the extra petals probably tending to support the flowers as they start to wilt.

Goldsworth Yellow—xx, H–2. This is the hardiest of the yellow varieties, at least of those now available. Unfortunately the flowers do not open up wide, and are inclined to look, to me at least, as if they were just past full bloom. Its hardiness makes it worthy of trial where a yellow variety is wanted in the colder states. It is listed as apricot yellow, but is slightly spotted with green and bronze, so that the overall effect is not a good, clear yellow.

Gomer Waterer—xx, H–2. Although often sold as a white, this variety is somewhat blushed, and the buds are fairly deep pink before opening. The leaves are large and dark green, giving a rather lush appearance to the entire plant. It spreads at least as much as its height, which may reach about 5 feet in ten years.

Mars—xxxx, H–2. This is another late midseason red. It is a deep, true red, and the light-colored stamens make an interesting pattern on the rather full, upstanding truss. It makes a rather slow growth, reaching about 4 feet in ten years. This is one of the better varieties of this hardiness rating. It is grown, and well liked, in the Northwest, and can also be grown in all except the very cold areas of the East Coast.

Naomi G.—xxx, H–2. This is one of those group varieties which, like 'Loderi,' has produced a number of similar but very desirable clones. It is a comparatively recent introduction to this country, and should become more popular, although it is slow to propagate. The color is pink, some clones running to a rich salmon pink. A dozen or so selections of the group have been named. At the present writing I cannot do better than recommend any one of them, as all with which I have had any contact seem to have some merit. The variety 'Glow' has been very attractive in the test garden at Portland. The hardiness rating was based primarily on behavior in the Northwest at the time of the 1955 freeze. How 'Naomi' or its various clones will do in the East is still largely to be determined.

Mrs. P. D. Williams—xxx, H–2. This is a late midseason variety which grows rather slowly, reaching about 4 feet in ten years. The color is ivory-white with a golden-brown spot. A plant in full bloom is a beautiful sight. Possibly the root system is not quite as vigorous as might be desired, as sometimes young plants seem to blow over fairly easily, although once well established, this should not be a drawback.

Princess Elizabeth—xx, H–2. This is a rather late-flowering, crimson-colored rhododendron, which has a rather attractive flower and truss, but is a very leggy and relatively unattractive plant. It is worthy of trying where weather conditions do not permit the growth of better reds.

Purple Splendour—xxxx, H–2. Of all the purples this is, in my opinion, quite the best. It is a deep, royal purple with a black spot. The growth is rather compact, spreading after the plant reaches a few years of age, but it should grow to about 4 feet in ten years. Because of the very dark color, this variety should be grown where it can be seen from nearby. At a distance, as with any other dark-colored variety, it would be hard to distinguish the flower from the dark-green leaves. Where a lighter-colored sort such as white, or particularly yellow, can be grown near 'Purple Splendour,' it tends to set off the color to considerable advantage. This variety is proving relatively hardy, although sometimes the buds may be injured by cold. It is being grown or tried pretty much wherever rhododendrons will thrive, except in their extreme northern range.

Sappho—xx, H–2. For those who want a heavily spotted variety, which will grow to about 5 feet in ten years, this is worth growing. It is white with a very large, conspicuous, purplish blotch. Growth is rather open, and the plant itself not particularly graceful when young. Compare with the description of 'Hyperion.'

Trilby—x, H–2. Here we have a deep crimson variety with a dark blotch, blooming in late midseason, and reaching a height of about 5 feet in ten years. It does not have quite the flower quality of a number of other red varieties, as indicated by the rating of x, but it is a good, free-growing, and rather attractive variety. It is well distributed in the trade, and if your nurseryman or garden center has it in stock, you would not go wrong by planting it.

THE OLD HARDY HYBRIDS

The practice of naming group varieties did not become common until after the old hardies had been introduced and, as far as I know, they all started as clones. However over the years, seedlings of similar parentage were raised, and it was almost inevitable that some confusion should arise. The practice of giving Latin names to clonal varieties added to the confusion. So it is not surprising that more than one clone may be found under a given name and, in some cases, it is difficult, if not impossible, to determine which is the original and correctly named form.

America—x, H–1. This is considered by various writers as being about the best of the very hardy red varieties. It blooms midseason and should grow to about 6 feet in ten years.

Boule de Neige—x, H–1. This is a very hardy white, the flowers being of medium size, but the trusses give the impression of large snowballs. The leaves are fairly large and so, although a small, slow-growing variety, it is not usually listed with the dwarfs. The plant is very compact and rounded in appearance and it should reach 3 or 4 feet in height in ten years.

Catawbiense Album—x, H–1. This is a vigorous-growing, very hardy, white variety, reaching about 7 feet in ten years. For those localities where temperatures are mild, there are better whites, but for colder climates this will give a good show where a rather large plant is desired. If a low-growing plant is wanted, 'Boule de Neige' would be more desirable. However, it blooms early, and 'Catawbiense Album' blooms late.

Charles Dickens—x, H–1. This is a very hardy red, blooming in midseason and reaching about 6 feet in ten years.

Cunningham's White—x, H–2. Gardeners looking for a white variety would not choose this if they could grow some of the larger-flowered, more tender varieties. However, 'Cunningham's White' does have good bush characters, being slow-growing, dense and with fairly small, shiny, dark-green leaves. It is better as a landscape shrub than as a specimen.

Dr. V. H. Rutgers—x, H–2. With flowers of aniline red, this is a midseason and fairly free-growing variety, reaching about 6 feet in ten years.

Everestianum—x, H–2. This is rosy lilac, blooming in midseason and making a rather large, rounded bush to about 6 feet in ten years. It is considered one of the old hardy hybrids, or one of the ironclads, but not quite as hardy as some of the others.

Lee's Dark Purple—x, H–2. Where 'Purple Splendour' is not quite hardy enough, this should be a fairly acceptable substitute for a purple rhododendron. It is over a hundred years old, but still useful in its place.

Mrs. Charles S. Sargent—x, H–1. This rose-red, yellow-spotted, very hardy variety has been spoken of as the best of the old hardies in the pink shades. It is quite old, but nevertheless still worthy of planting in areas where hardiness is a very important factor.

Roseum Elegans—x, H–1. This is a free-growing, midseason rhododendron with flowers of soft rose or rose-magenta color. Although it was introduced as a clone, several similar types have gotten into the trade during the one hundred years or more since 'Roseum elegans' was first distributed. I have been told that the original clone is best. It might be well to see this one in bloom, if possible, before purchasing it, in order to be sure the clone is what you desire from the standpoint of color.

THE DWARF VARIETIES

The following varieties are usually considered to be dwarfs, although some of them may reach 4 or 5 feet in height at maturity. Most of them have rather small leaves and are relatively slow-growing. Obviously the distinction between the dwarfs and the larger-growing varieties is rather indefinite, but the following are listed as dwarfs by most writers.

Much could be said about the use of dwarfs, but in any event they must be used close to where the garden visitor is standing, and not somewhere in the distant background. That means they should be fairly conspicuous, in a rock garden or as an edging for a larger border or a pathway, where they will be under close scrutiny the year round. Although some of the large growing varieties may be valued for their beautiful flowers, in spite of a rather awkward-looking, unattractive bush, dwarfs must make a reasonably attractive plant to be worthy of inclusion in most gardens.

Arthur J. Ivens—xxx, H–2. One parent of this variety is *R. williamsianum,* which is a nice thing in itself, having small, almost round leaves, a rather beautiful, coppery bronze-colored new shoot growth in the spring, and flowers that are pink and bell-shaped. The seedlings of this species all have certain characteristics in common, including the rounded leaves and the bell-shaped flowers. This one is pale pink, and in ten years will grow to at least 3 feet in height. Its hardiness makes it worthy of consideration for a rather wide area.

Conemaugh G.—xx, H–2. This is a dwarf variety originated by Mr. Joseph Gable of Pennsylvania. The flowers, which appear very early in the season, are fair-sized for a dwarf, and lavender pink. The first growth is inclined to be upright and somewhat open. For early bloom, especially where hardiness is a factor, this is one to consider.

Ramapo—A hybrid produced by Mr. Guy Nearing of New Jersey, 'Ramapo' does not at this time have A.R.S. ratings. However for the person who wants a dwarf rhododendron which is adaptable to fairly low temperatures, this might be one to try. The leaves are small and the flowers fairly small, of a pinkish-mauve color. It is a neat-appearing plant, although the color is not as good as that of some of the more tender varieties.

AZALEA VARIETIES

• KAEMPFERI HYBRIDS

In 1892, Professor C. S. Sargent of the Arnold Arboretum sent back seeds of this azalea from the Kirishima mountain area in Japan. Mr. E. H. Wilson maintained that this was a form of *R. obtusum,* in which species the Kurume azaleas are presumed to have had their origin. Later experience leads to the conclusion that *R. kaempferi* is a good species in itself.

The Kaempferi hybrids are rather upright-growing, and may eventually reach a height of 8 feet. They are somewhat hardier than the Kurumes. The flowers are single, with some hose-in-hose, and in general larger than most of the Kurumes. Breeding in this group was carried on by certain Dutch nurserymen, including P. M. Koster, and C. B. vanNes and Sons, both of Boskoop. Plants are occasionally found in nurseries under the name Kaempferi. These may be plants of the original species, but more often they are hybrids, as this group crosses readily with *R. obtusum,* from which the Kurumes were derived. There is some opinion that *R. kaempferi* may also have been involved in the ancestry of the Kurume group.

'Annamaria' and 'John Cairns' are said to be good selections of the Kaempferi hybrids.

• PERICAT HYBRIDS

These azaleas are the result of breeding work by Alphonse Pericat at Collingdale, Pennsylvania. The parentage is not definitely known, but they may be hybrids between the Kurume and Belgian Indian types, produced primarily for greenhouse forcing. They are, however, hardier than many of the forcing types, and are considered to be satisfactory as outdoor plants from Washington, D.C. south.

Flanders Field—Late midseason, orange red in color.

Madame Pericat—Hose-in-hose, pink with a lighter center, late midseason.

• KOREAN AZALEAS

Known botanically as *R. poukhanense,* this is the hardiest of the evergreen azaleas in common cultivation. This is not so much a "group" as it is a single species, with its various seedlings and chance hybrids. It has been used in breeding by Gable and others. Most of the plants available are seedlings, although a few might be accidental hybrids. There is one double form known as 'Yodogawa.' Although this is considered to be an evergreen species, it loses a good part of its leaves during the winter, in colder climates.

• GABLE HYBRIDS

Mr. Joseph B. Gable of Stewartstown, Pennsylvania, has for many years been breeding both rhododendrons and hardy evergreen azaleas. Since a number of different species were involved in the parentage, the Gable hybrids represent a rather miscellaneous group, but hardiness has been a dominant factor. Species used as parents include *R. poukhanense, R. kaempferi,* and various named varieties of *R. obtusum* and other species.

Among the Gable hybrids are the following, from a total list of perhaps fifty:

Big Joe—Early midseason, spreading, medium height, single flowers to about 2½ inches. Reddish violet in color.

Caroline Gable—Flowers to 1¾ inches. Red.

Elizabeth Gable—Late-blooming, single flowers, frilled, 2½ inches. Red with darker blotch. Very hardy.

Purple Splendour—Probably the best purple in the azalea field, although not nearly so dark and rich as the 'Purple Splendour' rhododendron.

Rosebud—This is a low-growing, dense, late-flowering variety with double flowers. Violet rose in color.

Cameo—Late-flowering, hose-in-hose, flowers about 1½ inches. Shell pink in color.

• INDICA AZALEAS

Japanese hybridizers have given us a group of very late-flowering varieties, derived from *R. indicum,* sometimes known in the trade as the Macrantha type. This group is known in Japan as the Satsuki azaleas, and certain forms have been in cultivation for some 300 years. Most of the flowers are large; some are frilled. Most varieties are fairly hardy, at least as far north as Washington, D.C.

A group of azaleas brought into this country by the Plant Introduction Section of the U.S.D.A. came from the Chugai Nursery, and are sometimes known as the Chugai hybrids. They include plants of the Indica type, and some hybrids between that type and others, particularly the Belgian Indian varieties. Some forty or fifty varieties were brought in but probably not all are now available in the nursery trade. Certain clones, known as Gumpo, seem to belong to a subspecies known as the dwarf Indica, or possibly to be seedlings of that species crossed with some other. The Gumpo clones, available in at least white and pink, are very low-growing, spreading, with relatively large and attractive flowers, and are hardy in the New York City area.

Jindair—Very late, white.

Keisetsu—Orange red with a white throat and variegated leaves, late.

Waraigishi—Deep rose with a darker blotch, single to semidouble, late.

• RYUKYU GROUP

Several species are involved in this group which came from the Ryukyu Islands south of Japan. The species most widely grown is *R. mucronatum.* This has been under cultivation in Japan for more than 300 years, and is still available in the nursery trade as 'Indica Alba,' or 'Ledifolia Alba.' It is a spreading, medium-tall plant, with single, pure-white flowers some 3 inches in diameter, hardy as far north as Long Island, New York. The leaves are somewhat hairy and tend to hold the mud splashed onto them during rains or during the winter. A similar clone is 'Sekidera,' essentially the same as the type except that the flowers are blotched with violet red in a very striking contrasting pattern.

• GLENN DALE HYBRIDS

This is the largest group of evergreen azaleas now available to the gardening public. The various clones were grown and selected by Mr. B. Y. Morrison, formerly of the Plant Introduction Section of the U.S.D.A. The original seedlings were grown at the Plant Introduction Station at Glenn Dale, Maryland, hence the name. The original aim was to produce varieties which would be hardy and happy in the climate of Washington, D.C., although some of them will thrive far beyond that area. From some 70,000 seedlings over 400 clones have been named—a rather unfortunately large number, as the azalea lover has been faced with the monumental task of deciding which ones of these numerous varieties are suited to his conditions and meet his esthetic requirements.

Some of these clones were introduced almost twenty years ago, but we still do not have ratings or lists of the best of the group for various climatic conditions. However a number are emerging as hardier or more adaptable than the rest, and eventually will take their place in the azalea world. The parentage of the Glenn Dale varieties is quite varied, including the Indica azalea, the Chugai selections, *R. kaempferi,* and a number of named varieties as well as additional species. The plants are mostly of average size, some upright, some spreading, and most have large and rather attractive single flowers, although there are some doubles.

It is certain that, for the environment of Washington, D.C., the gardener can find a wide range of plants with beautiful flowers and attractive bushes. Gardeners in other areas who are just beginning with azaleas will probably have to rely on the experience of their local nurserymen, or order plants from a distance by catalogue description and hope for the best. In the Pacific Northwest there seems to be somewhat more interest in rhododendrons than in azaleas, and so there has not been enough experience accumulated to make possible the compilation of a recommended and tested list.

Aztec—Low, red with a white throat, late.
Ballet Girl—Early, flaming, orange red.
Cordial—Pink, late midseason.
Crinoline—Pink, about midseason.
Cygnet—Early, low-growing, white.
Driven Snow—Late, low-growing, white.
Eros—Low-growing pink, blooms very late.
Glacier—White, late midseason.
Joya—Early midseason, pink.
Pearl Bradford—Low-growing, very late, deep rose pink.
Tanager—Late midseason, orange red.
Wildfire—White-throated red, late.

DECIDUOUS AZALEAS

There are several groups of azaleas which lose their leaves in the winter and, possibly because of that, are somewhat hardier than most of the evergreen types. Gardeners wanting azaleas in the yellow shades will have to find them here. These deciduous plants are extremely colorful and beautiful while in flower, and in addition many exhibit autumn coloration, running through the yellows to bright red to deep maroon. However in midwinter they are unmistakably bare, and that must be considered in using them in the landscape.

• GHENT HYBRIDS

Breeders in Ghent, Belgium, beginning in the early 1820s, worked with some of the native American species and the native deciduous azalea of southeastern Europe, commonly known as the Pontic azalea, or *R. luteum*. The group of varieties resulting from their work is usually known in this country as the hardy Ghent hybrids, and in Holland as the Pontica azaleas. Some are single and some double. Colors run through yellows to orange-red. As deciduous flowering shrubs, they are difficult to match for brilliant color, graceful form, and autumn coloration. The plants generally are rather upright-growing while young, but later spread to form fairly well-balanced bushes. Some are said to have survived 25° below zero. The flowers are only medium in size, with a long tube, and frequently possess some fragrance.

Coccinea Speciosa—Reddish orange in color, over 100 years old but very striking.

Nancy Waterer—Golden yellow, midseason variety with rather large flowers.

Gloria Mundi—A tall-growing variety, producing single, frilled flowers in late midseason, orange with a yellow blotch.

The Ghents, long popular in the deciduous azalea field, have been replaced or superseded, to a considerable extent, by some of the groups to follow.

• MOLLIS HYBRIDS

This is a rather complex group, including at least two Asiatic species. The breeding began close to a hundred years ago in Belgium and Holland. A rather large number of varieties have been named, but not all of these were clones. A few types came fairly true from seed, and the seedlings were sold under a variety name, after odd-colored or obviously different plants were held out. These azaleas are rather difficult to propagate by cuttings, and layering is slow and tedious. Varieties can be grafted, but the experience has not been especially satisfactory, as grafted azaleas have not been as resistant to drought and cold as plants on their own roots. Furthermore, the understock, usually *R. luteum,* frequently sends up shoots, and the result is a mixture of the bright, yellow-flowered understock with whatever type of flower is produced by the scion variety. The result has been that seedlings have been sold in large numbers, just as Mollis hybrids. As a general rule the Mollis seedlings are not quite as large in flower or as pure in color as some of the named varieties, which are sometimes rather difficult to find. The seedlings are usually of two colors, light yellow or a reddish apricot. Occasionally deeper reds or especially good yellows are found.

Adriaan Koster—A good deep yellow.

Aureum Grandiflorum—This is said to be the correct name of the rather striking orange yellow, frequently sold under the name of 'Altaclarensis,' which is white with an orange blotch. 'Aureum Grandiflorum' is sometimes listed with the Ghents but presumably has *R. molle* as one parent. The white 'Altaclarensis' is listed as a Ghent hybrid.

Christopher Wren—A seedling of 'Aureum Grandiflorum,' and superior to it. Large yellow flowers with an orange blotch.

Dr. M. Oosthoek—Reddish orange with a lighter blotch.

Koster's Brilliant Red—Reddish orange.

• OCCIDENTALE HYBRIDS

Koster's in Holland and John Waterer Sons & Crisp of England during the latter part of the last century crossed the native western azalea, *R. occidentale,* with Mollis hybrids and produced a number of very fine deciduous varieties, usually considered under the name Occidentale hybrids. They do not, however, have the large flowers to be found in the following group.

Graciosa—Orange yellow, suffused with red, with a yellowish orange blotch.

Irene Koster—Late midseason, with scented flowers, white-flushed red.

• KNAP HILL HYBRIDS

Beginning about 1870, Anthony Waterer, one of the leading English nurserymen, crossed a Chinese species, *R. molle,* with the native American azalea, *R. calendulaceum.* Additional crosses were made, bringing in other American species, and later the western species, *R. occidentale,* until there are probably seven or eight species involved if we consider the whole Knap Hill group.

Eventually plants were furnished by Waterer's Nursery to the Slocock Nursery, and to the late Edgar Stead at the Ilam Estate in New Zealand, and to the late Lionel de Rothschild at Exbury, near Southampton, in England. Each of these individuals made further crosses and created further improvements. Their plants have been introduced under the group names Knap Hill, Slocock, Ilam, and Exbury. Certainly they are all somewhat different, but in view of the fact that they are all based on the original breeding at the Knap Hill Nursery, and as they all have some characters in common, the tendency now is to call them all Knap Hill azaleas. In this group are to be found varieties which have larger and more spectacular flowers, more beautiful shades of coloring, and in general a more attractive floral display than in any of the other azalea groups. Some show attractive autumn coloration, and some are quite fragrant.

These, like all the other deciduous azaleas, have proven to be rather difficult to grow from cuttings. They have been grown in England by layering, as being more satisfactory than grafting. However, this is a slow process, and results in plants which, while young, are rather poorly shaped, and need to be grown in the nursery row for a couple of years to develop a bush of pleasing form. Many nurserymen have been interested in growing these varieties by cuttings, and a great deal of progress has been made, so that in the near future we may look forward to seeing named, cutting-grown varieties available.

In the meanwhile nurserymen and azalea fanciers in general were faced with the problem of having some very beautiful varieties in their possession with no very rapid means of multiplication. As they do produce seed rather freely, and the seedlings are easy to grow, a great many seedlings, some of controlled crosses and others open-pollinated, have been produced. The results have been quite remarkable from the standpoint of general average quality—considerably better than is usually obtained from sowing seed of cultivated varieties of other ornamental plants.

Some varieties were found to come fairly true to type, and others produced a very miscellaneous lot of seedlings. At one time there was a trend toward selling seedlings under the name of the female parent which, of course, was undesirable. Several nurserymen in the Northwest have been growing relatively large numbers of seedlings and selling them in bloom simply as unnamed seedlings. This permits the gardener to select a plant which he likes, and one which no one else has in exact duplication. The difficulty is that he may want another plant, or a friend might want one, and it is simply not available. It will be better for all concerned when these plants are freely grown from cuttings, although the seedlings have given rise to a large number of very fine individuals. Some have been named, and others will be named, and propagated asexually.

As might be expected from such a varied ancestry, the hardiness of the various varieties and unnamed seedlings varies considerably. Quite a number have been found to be extremely hardy. Among the varieties available in this country, and at least partially proven in the Northwest, are the following:

Balzac—A fragrant orange-red variety.

Berry Rose—Orange red with a yellow blotch.

Flamingo—Tall-growing with large carmine-rose flowers, very definitely a flamingo pink.

Golden Oriole—Upright, early, tall; a large yellow flower with a deep-tangerine blotch.

Goldfinch—Rather tall, the flowers yellow with a deeper yellow blotch.

Marion Merriman—This is a rather low-growing, spreading variety, blooming in late midseason, with large flowers of greenish yellow flushed with orange yellow.

Strawberry Ice—Rather tall-growing, peach pink.

White Throat—This is a rather low-growing, spreading variety, blooming in midseason, with pure white, double flowers about 2 inches in diameter.

Persil—Large-flowered white with a pale-yellow blotch.

Satan—Bright scarlet.

SPECIES AZALEAS

Some of the species of the azalea series are very fine garden subjects. In some cases there are hybrids, which carry some of the desirable species characteristics, but others are available only in the species form.

R. schlippenbachii—This so-called Royal azalea from Korea has apparently not been used to any extent in hybridizing. Perhaps the hybridizers have looked at its large white to pink flowers, some as large as 4 inches across, and have wondered what could possibly be crossed with it to make it more beautiful or more desirable. It produces a rounded plant to 10 or 12 feet in height, perhaps 4 to 5 feet in ten years, and is quite hardy. It is true that there is considerable variation in seedlings, and so it is always desirable, if possible, to propagate from a plant of known characteristics. However, almost any *R. schlippenbachii* seedling will produce a beautiful and useful garden plant.

There are other azalea species from the Far East which will no doubt eventually be more frequently used than they now are. At present they are not as readily obtainable as *R. schlippenbachii*, and on the whole are perhaps not as spectacularly effective in the garden. We might mention three other very fine deciduous azaleas worth trying, if you can find them: *R. albrechtii*, *R. quinquefolium*, and *R. reticulatum*. We have already mentioned the evergreen sorts, *R. kaempferi* and *R. mucronatum*, to which we might add *R. oldhamii*, all of which make excellent garden plants.

NATIVE AMERICAN SPECIES

It has been stated that several of our native American species were involved from the beginning in the development of the Ghent hybrids, with which were combined, over a period of years, certain other American species, to produce eventually the Knap Hill type, with its very large and beautifully colored flowers. These flamboyant varieties are a far cry from the more modest and retiring species, which, however, were responsible for many of the best characteristics of the Knap Hills. There might be some who would question whether there is need for the original species plants, now that we have the far superior named varieties, selected, during a century and more of breeding, from thousands and thousands of seedlings of dozens of different crosses.

As previously stated with respect to rhododendrons, the tendency for the beginner is to desire the largest-flowered and brightest-colored of the hybrid varieties. Later he begins to appreciate the species rhododendrons because of their refined and well-balanced appearance—not only for their bloom, but for their individual and unique characteristics of leaf, twig, and bush shape. In the same way the native azalea species bring to the garden plants with real character and individuality. Some are outstanding for color in mass, others for fragrance, others for blooming at the time when flowers in the garden are scarce, and others just for inherent qualities of gracefulness and attractiveness.

The real problem is where to secure these desirable shrubs. Very few nurserymen are raising them from seed. Still fewer have selected outstanding specimens and propagated them from cuttings or layers. There are superior individuals, and there are natural hybrids occurring rather frequently in the wild, so that we may certainly look forward to being able, eventually, to secure fine forms of these native shrubs. How then can one, and especially a beginner in this field, find plants for his garden?

There are some plants collected in the wild and listed in nursery catalogues. If properly handled, these may be reasonably satisfactory, although the plants are usually collected while dormant, hence include the poor seedlings with the good ones.

The following list does not include all of our native azaleas, or even all the desirable ones but, rather, a few which are most likely to be available and useful in your garden. They are all deciduous.

R. arborescens—This is a late-flowering species, which at maturity becomes a rather large, spreading shrub. The white, sometimes flushed pink, flowers appear after the leaves are out. It is rather important for garden purposes to use selections which have large flowers and glossy, attractive foliage. This is a very hardy species, native from New York and Pennsylvania south to Georgia.

R. bakeri—Apparently synonymous with *R. cumberlandense*, this species is somewhat more compact than the following, but resembles it in color range, blooming somewhat later. It is found at high elevations from Kentucky south to Georgia and Alabama.

R. calendulaceum—Of all the southeastern azaleas, this one, known as the Flame azalea, has probably been recognized as a fine ornamental for the longest period of time. It has been used freely in breeding, but there has not been too much progress in the introduction of very fine forms of the species itself. It is an upland grower, found from Pennsylvania to Georgia. The colors range from yellow to orange to brilliant red, through apricot and other intermediate shades. This species produces a vigorous plant to 10 or 12 feet in height, and is especially effective in the edge of a woodland, or growing up through other shrubs and small trees.

R. canadense—This is a very hardy, deciduous species, growing from the east coast of Labrador and Newfoundland south to the northern part of New Jersey. It makes an upright little bush, reaching perhaps 3 feet in height. It has grayish-green foliage and rosy purple flowers. There is a white form which is especially nice. This species was at one time placed in a separate genus, *Rhodora*, but is now considered an azalea. For the northern gardener with acid soil, this little plant may permit inclusion of the genus in gardens where the more common types of rhododendrons would be completely out of the question.

R. nudiflorum—An early midseason, pink-flowering azalea, this species makes a fine garden subject because of its very free flowering and sweet, spicy fragrance. It is known as the Pinxterbloom or Honeysuckle azalea. It grows in the wild from Massachusetts to North Carolina, and hence must be considered reasonably hardy. With this, as with the other native species, it is important to find good specimens. It has been said that the difference between the best and poorest of these native species "is often the difference between platinum and tin."

R. occidentale—This is the only azalea native to the West Coast, where it is called Oregon azalea, or just Western azalea. It is found from Southern California north to the State of Washington, with its greatest development along the coast, near the Oregon-California border. Plants grow to 8 or 10 feet in height, and greater than that in spread, and produce beautiful, sweet-scented, creamy white to pink flowers with a yellow, or orange-yellow, blotch. This beautiful species has not been satisfactory as a garden plant in the East or in Europe, but has been a valuable parent in the development of our modern garden azaleas, especially the Knap Hills and similar groups. It is a very desirable garden shrub in those areas of the West where it appears to be naturally adapted.

R. roseum—Quite attractive in its best color forms, this species varies from almost white to deep pink, approaching red. It is very hardy, occurring in the wild from New England west to Indiana, and south to the Virginia Blue Ridge.

R. speciosum—This species must be considered as somewhat less hardy than the preceding, as it comes from the lowlands of Georgia and South Carolina. It is especially notable for its fine flower color, ranging through yellows to bright, incandescent reds, with softer types intermediate.

R. vaseyi—This Pink Shell azalea from western North Carolina is a beautiful thing, grown to some extent in Europe, but all too scarce in American gardens. The best forms are deep, rich pink in color, although a good white form has been selected. It is somewhat hardier than its southern origin might indicate.

"GETTING STARTED WITH
RHODODENDRONS AND AZALEAS"
—J. HAROLD CLARKE 1960

AN 58

catawbiense, while plant-hardy to −25° F. will fail to bloom because the flower-buds will be killed at −20° F. For safety's sake it is well to interpret these figures conservatively, because some species, while managing to survive at a minimum temperature, will not behave satisfactorily after exposure to so much cold. They tend to show obscure internal injuries, decreased vigor and ultimate dwindling. It is better, therefore, to regard the safety limits as at least five or 10 degrees warmer than the minimum survival temperature given on the list, except in the cases of known and tested "ironclads."

Concerning Certain Dubious Matters

ESTIMATED SURVIVAL LIMITS OF SPECIES AT MINIMUM TEMPERATURES

(Hardiness Ratings of the American Rhododendron Society) *

Colder Than −15°F. (Class H1)

AZALEAS

(arborescens)	*cumberlandense*	*Schlippenbachi*
calendulaceum	*nudiflorum*	*Vaseyi*
canadense	*roseum*	*viscosum*
		Ghent Hybrids (in part)

RHODODENDRONS

(*Note:* Because nearly all evergreen rhododendrons will lose their flower-buds at −20° they are not included in the H1 class by the Rhododendron Society, although the following will probably be able to survive to −25° without blooming.)

(carolinianum)	*(maximum)*	*mucronulatum*
(catawbiense)	*(minus)*	*(Smirnowii)*
(ferrugineum)	*micranthum*	(Catawba Hybrids) †

Minimum −15°F. (Class H2)

AZALEAS

arborescens	*japonicum*	*poukhanense (yedoense)*
atlanticum	*molle*	Mollis Hybrids

RHODODENDRONS

achroanthum	*carolinianum*	*maximum*
adenogynum	*catawbiense*	*minus*
aeruginosum	*chryseum*	*mucronulatum*
agglutinatum	*crinigerum*	*orthocladum*
auriculatum	*cuneatum*	*racemosum*
Balfourianum	*dauricum*	*ravum*
Beesianum	*elegantulum*	*rubiginosum*
brachycarpum	*fastigiatum*	*russatum*
Bureavii	*ferrugineum*	*Smirnowii*
californicum	*flavidum*	Catawba Hybrids
caloxanthum	*impeditum*	Maximum Hybrids
campanulatum	*intricatum*	Smirnowii Hybrids
campylogynum	*Keiskei*	Carolinianum Hybrids
camtschaticum	*(macrophyllum)*	(Dexter Hybrids)

Minimum −5°F. (Class H3) NOT FOR T.H.

AZALEAS

linearifolium	*obtusum*	*quinquefolium*
luteum	*occidentale*	*reticulatum*
mucronatum	*pentaphyllum*	

RHODODENDRONS

aperantum	*fulgens*	*polylepis*
argyrophyllum	*fumidum*	*prostratum*
basilicum	*galactinum*	*pruniflorum*
caeruleum	*glomerulatum*	*pubescens*
calophytum	*gymnocarpum*	*radicans*
calostrotum	*haemaleum*	*repens*
chartophyllum	*heliolepis*	*saluenense*
chrysanthum	*hippophaeoides*	*sanguineum*
Degronianum	*keleticum*	*Sargentianum*
desquamatum	*lapponicum*	*scabrifolium*
diacritum	*lepidotum*	*scintillans*
didymum	*Makinoi*	*shweliense*
discolor	*myrtilloides*	*telmateium*
drumonium	*niphargum*	*timeteum*
eclectum	*orbiculare*	*triflorum*
Fauriei	*oreodoxa*	*Williamsianum*
fictolacteum	*oreotrephes*	*yungningense*
floccigerum	*pachytrichum*	*yunnanense*
Fortunei	*pemakoense*	

THE HYBRID GROUPS AND CLONES

In this brief work, we shall not attempt to list more than a very few of the clones that are to be found among any of the cultivar groups of azaleas and rhododendrons. However, we shall briefly note a few available examples under each of the principal groups of hardy hybrids. Individual differences within the groups are largely variations of flower color and pattern. Collective descriptions of each group will suffice.

THE HYBRID AZALEAS

GHENT HYBRIDS (Luteum subseries). These were developed in Belgium, beginning about 1825, and shortly thereafter in England, from crosses of American deciduous azaleas with *Rhododendron flavum*, the yellow Pontic azalea. It is questionable how much the latter was used, since the hybrid race is very similar to known inter-crosses of purely American species. Evidently, *R. calendulaceum*, *R. roseum*, *R. nudiflorum*, *R. arborescens*, *R. viscosum*, *R. speciosum* and eventually *R. occidentale* entered into the final amalgamation, producing a rather hardy and extremely varied population. With careful selection after hybridization, many superior clones were produced, including double-flowered forms. Being bred in and for European countries, plants of the Ghent hybrids vary in their adaptability to and durability against American conditions. But, as a group, they are generally more suitable than any other race of hybrid azaleas for the cold Northern regions of North America. They are all deciduous. They prefer a cool climate in summer. And they are important because they possess a range of colors that is unexcelled in the genus — from white and cream, through all shades of yellow, orange, vermilion, and rose to rosy-purple. A few are scarlet. Some have attractive shading and some produce bicolor effects. The flowers range in size from 1½ to 2½ inches across, and some are delightfully fragrant with the scent of *R. roseum*, *R. viscosum* or *R. arborescens*. Not infrequently, the flower cluster takes the form of a spherical rhododendron-like truss. Most of the flowers have more or less of a yellow blotch on the upper lobe. Occasionally, this produces a spectacular effect.

In recent years the American species, *R. occidentale* from our West Coast, has been worked into the race. Several sub-groups are recognized. There is also an admixture of *R. molle* and *R. japonicum* with the Ghent hybrids. Still more recently *R. atlanticum* has entered into the amalgamation.

The history of this hybrid group and its sub-groups is interesting. The original Belgian race was substantially improved by the late Anthony Waterer in England some 50 to 75 years ago. His strain, known as the Knaphill strain or sub-group, has been subsequently altered by several later breeders, including his successors at Knaphill (the Improved Knaphill sub-group), Slocock (the Goldsworth sub-group), de Rothschild (the Exbury Ghent sub-group) and others. Another strain, bred for New Zealand is known as the Ilam sub-group. Several of these improved forms seem to surpass the older clones considerably, especially in size of flower. Because most of these have been bred abroad and are relatively untested as yet in the American Northeast, no list of these newer clones is presented here. Where some may prove very useful here, it is expected that those selected especially for this region will be more satisfactory than those which may have done best elsewhere. It will be well to watch the progress of this group, for some excellent, new, hardy azaleas may appear.

In the Ghent group as a whole, the best improved clones are definitely superior to the wild sorts in size and floral qualities. New methods of own-root propagation by means of softwood cuttings may make them more readily available than formerly. As noted elsewhere, own-root plants are more to be desired than grafted plants. Certain clones are sterile in the sense that they do not set seeds. These will tend to bloom more consistently every year than others which will tend to have alternate years of sparse and abundant bloom. It helps, to remove the flowers as soon as they fade. Generally, none of

azaleas of the Luteum subseries is as consistent in over-all annual bloom as those in the Obtusum subseries. However, if given good light and good growing conditions, they can often become as spectacular. Occasionally they become truly breath-taking!

Whenever good hybrid plants are not available or in places where large numbers of medium-priced azaleas are desired, one may still use the various wild American species and mixed seedlings therefrom, or mixed seedlings of Ghent hybrid origin, with telling effect and a minimum of expense. For many such seedlings are as beautiful as some of the old-time Ghent hybrids, and such material may be employed satisfactorily and economically.

While there may be some uncertainty regarding the behavior in America of the new untested forms, many of the old Ghent hybrids are reliable and some are very hardy. Own-root plants are preferred. The "improved" sorts have flowers up to three inches across and may hold great promise for the future. The clones in the following list are not of this large type, but are well-known clones of the older Ghent Hybrid group which have been found generally satisfactory and worthwhile in Eastern America.

OLD GHENT HYBRID AZALEAS

Altaclarensis	Narcissiflora
Beaute Celeste	Nancy Waterer
Bijou de Gentbrugge	Pallas
Bouquet de Flore	Raphael de Smet
Coccinea Speciosa	Rembrandt
Comte de Flandre	Sang de Gentbrugge
Daviesi	Unique
Gloria Mundi	and dozens more.
Ignea Nova	

MOLLIS HYBRIDS (Luteum subseries). The origin of these hybrids is expressed by this formula: (*Rhododendron molle* × *R. jabonicum* × Ghent Hybrids). As befits the progeny of these deciduous, Oriental species, the Mollis hybrids bear flowers that are larger than those of the ordinary Ghent hybrids. They appear somewhat like forms of *R. molle* to which some of the Ghent colors have been added. Through the years, evidently, there has been considerable intercrossing, and it is by no means certain that some of the "improved" Ghents do not possess some Mollis "blood." Characteristically, however, the two hybrid sub-groups differ in the same way in which their dominating American and Oriental prototypes differ. The Mollis sorts are somewhat coarser as well as less durable than the Ghents, but bear somewhat broader flowers.

This race was developed around the year 1880. The various clones come in yellow, orange and rose colors, with intergrades. If not kept in vigorous growing condition, they seem to languish more quickly in cold climates than do the Ghent hybrids. It is suggested that, in order to keep them in vigorous condition, they need special attention to the periodic removal of unthrifty wood and the stimulation of new shoots to replace those which dwindle. Otherwise, the whole plant may dwindle and die. Occasionally, a plant is found which has survived to old age — seeming to contradict the preceding assumption. I have observed that these good specimens most often occur in sites where there is abundant summer moisture, which seems to be a critical point. Seedlings of *R. japonicum*, in my opinion, are about as satisfactory as most of the clones. Again, own-root plants are better than grafted ones. Good plants in this group have flowers up to three inches across. A few well-known clones, as follows, are examples of the group:

MOLLIS HYBRID AZALEAS

Anthony Koster	Comte de Papadopoli
Betsy de Bruin	Hugo Koster
Bouquet d'Orange	J. C. Van Tol
Comte de Gomer	Miss Louisa Hunnewell
Mrs. Oliver Slocock	

ARNOLD AZALEAS (Obtusum Subseries). Originated at the Arnold Arboretum from crosses of the Kurume clone 'Amoenum' with *Rhododendron Kaempferi*. Almost as hardy as *R. Kaempferi*, these are tallish plants with violet-red or purplish flowers which will grow outdoors at Boston. They are not of superior character, however. Representative clones are as follows:

ARNOLD AZALEAS

Cardinalis	Early Dawn	Mello-Glo

DAWSON AZALEAS (Obtusum Subseries). The formula for these is *R. Kaempferi* × *R. mucronatum*, and they are large-flowered, tall plants, notable as the first large-flowered, medium-hardy hybrids. There are only two clones, both with reddish-violet or lilac flowers:

DAWSON AZALEAS

Hazel Dawson	Helen Dawson

GABLE HYBRID AZALEAS (Obtusum Subseries). The formula for these notable plants is *R. poukhanense* × *R. Kaempferi* × various species. They are evergreen and hardier than the average by reason of their basic parentage noted above, combined with such species as *R. mucronatum*, *R. indicum*, the Kurumes and others. They are the work of Joseph B. Gable of Pennsylvania, who bred them with hardiness as an object. Selections of the introducer are reputedly as hardy as *R. Kaempferi*, but other introductions not made by him may not possess this quality. The flowers are from 1½ to 2¾ inches across and their colors range from salmon-rose to red, purple and white. A few clones of Mr. Gable's own introduction are as follows:

GABLE HYBRID AZALEAS

Big Joe	Louise Gable
Cherokee	Mary Dalton
Elizabeth Gable	Rosebud
Gable's Flame	Rose Greeley
Herbert	Springtime
La Premiere	Viola

ROTHSCHILD HYBRID AZALEAS (Obtusum Subseries). These are also known as the Exbury Hybrids and are not to be confused with the Exbury strain of Ghent Hybrid Azaleas, but are representatives of the Obtusum subseries with the formula of *R. Kaempferi* × *R. Oldhami*. They are large-flowered, medium-tall plants with flowers in colors of the rose-red-salmon series. We have no data, as yet, regarding their hardiness in America. Seven clones have been listed. It would be expected that they might be somewhat less hardy than *R. Kaempferi*.

AZALEODENDRONS (Ponticum Series × Azalea Series). These curious plants seem to be little known in America and may be of doubtful hardiness in the North. The two principal clones are old varieties, produced more than a century ago in England by crossing evergreen rhododendrons with azaleas of the Luteum subseries. This is a very wide and difficult cross, resulting in intermediate characters in the offspring. The flowers are yellow and truly beautiful, the plants about six feet high at maturity, with thinnish but evergreen leaves — actually intermediate between evergreen and deciduous types. The flowers are invariably sterile. In my opinion, they are lacking in vigor. Glory of Littleworth is best.

AZALEODENDRONS

Broughtonii Aureum	Smithii Aureum
Glory of Littleworth	

AL 60

GLENN DALE HYBRID AZALEAS (Obtusum Subseries). The research project which produced this magnificent series of outdoor azaleas is without doubt the most extensive breeding operation that has ever been attempted within the genus *Rhododendron*. The complicated origin of these plants may be expressed by this formula:

R. Kaempferi × *R. mucronatum* × *R. indicum* × Kurume azaleas and other Oriental species, hybrids and clones. There is now an extensive list of some 400 selections embracing highly superior clones out of over 70,000 seedlings recently raised at the United States Plant Introduction Station, Glenn Dale, Maryland. Among them there is wide diversity of color and type, and it is presumed that the various clones will vary also in hardiness and adaptability to site and climate. Since these are all recent introductions, some time is needed to properly screen the group for data as to hardiness and thrift in geographical areas other than that of Washington, D. C., where most tests have been made. These azaleas represent the work of Benjamin Y. Morrison, former divisional head, and without doubt they constitute the most significant advance that has yet been made in the breeding of Obtusum azaleas. Several of the clones, growing outdoors in Washington, are fully as fine as almost any greenhouse azaleas. Their diversity is so great that they can scarcely be put into one category for classification, but in general it may be said that the qualities of worthy florists' azaleas have been carried into plants which can be grown in ordinary outdoor gardens.

Only time will determine their limits of hardiness, but it may well be anticipated that some will be hardy at zero and perhaps a few to — 10° F. It is rather difficult to mention any particular clones without placing undue emphasis upon those which appear particularly well at Washington, D. C., and may not prove to be best elsewhere. For this reason, the writer considers that Mr. Morrison has been very wise in introducing hundreds of variants at the outset in order that wide trials may be made and the best clones discovered for each particular region. It will require time to eliminate the less adaptable ones and reduce the enormous list to a few superior sorts, but there is no better procedure than that which is being employed. The government is issuing a printed bulletin on the Glenn Dale azaleas, in which each clone presently introduced has been meticulously described. A number of the best clones are already in the trade.

These azaleas come in all colors common to the Obtusum subseries, including some with stripes, frills, flakes and picotees. In height, as well as in size of flower, they range through large, medium and small types, and may be either upright or spreading in habit of plant. Yellow and orange are the only colors that are lacking. Their foliage is evergreen or semi-evergreen. In time of bloom, they are listed as early, early-midseason, late-midseason, late and very late, with a good many selections in each class.

With most azaleas in the Obtusum subseries, their greatest drawback in the North and Northeast is their usual lack of hardiness at sub-zero temperatures (except for *R. Kaempferi* and *R. poukhanense*). It may be hoped that some of the Glenn Dales will accommodate themselves to these temperatures, but it is yet by no means certain that they will. It has been demonstrated that many of them will survive through a very cold night or two, but year-after-year survival in a cold climate is another matter and it cannot be hoped that they will be any hardier than *R. Kaempferi*, their hardiest parent. The reader is urged to keep in touch with this matter as new information becomes available. We shall make no attempt to list or recommend particular clones at this early stage of trial. It seems to me that many fine sorts will eventually prove satisfactory at temperatures to zero or — 5°F.

THE CATAWBA HYBRIDS AND THEIR KIN (Ponticum Series). These include the old Waterer hybrids and others of this formula: (*R. catawbiense* × *R. maximum* × *R. ponticum*, etc.) Some bright colors within the group are probably derived from early infusions of *R. arboreum* and other tender species, but the group as a whole, and the special American selections in particular, are hardy and constitute the "ironclad" list of evergreen rhododendrons for sub-zero climates. Most of those which have persisted in the American nursery trade are time-honored clones of tested worth, in which the "blood" of *R. catawbiense*, as well as the purplish-lilac tinge in their color, seems to be inseparable. A number of very old clones occasionally reappear in the trade, but those which are presently current, including a few modern additions, are listed below. The asterisks denote the dozen or so which over a long term of years have been considered best at the Arnold Arboretum near Boston, plus 'Caractacus' and 'Meadowbrook,' two other good ones deemed worthy of inclusion. Although almost all fo these would now be considered obsolete by British rhododendron fanciers, these old clones remain the most reliable evergreen rhododendrons we have for New England and the North. And regardless of prevailing fashions, there is a great deal of beauty in them all which continues to be impressive as one observes them from year to year. Judged impartially, some of these are still better than many new and fashionable sorts. Although not presently available in this country, the hybrids of Mr. T. J. H. Seidel of Germany are probably of great merit, too. Several of these are crosses between the Catawba hybrids and *Rhododendron Smirnowii*, and are bred with winter-hardiness in mind. The following list contains only a mere fragment of the Catawba hybrids on record, but these are the ones now being used in the Northeast; although some of them are not quite hardy enough for New England:

CATAWBA HYBRID RHODODENDRONS

Abraham Lincoln — *red*
*Album Elegans — *pale mauve to white*
*Album Grandiflorum — *almost white*
*Atrosanguineum — *red*
Boule de Neige — *early white*
Charles Bagley — *cherry red*
*Charles Dickens — *crimson red*
*Caractacus — *Purplish crimson red*
*Catawbiense Album — *white; pink buds*
Delicatissimum — *almost white, tinged pink*
Dr. Dresselhuys — *red*
Dr. Rutgers — *red*
Edward S. Rand — *red, yellow spots*
*Everestianum — *rosy lilac, frilled*
F. D. Godman — *dark crimson*
Fastuosum fl. pl. — *Double purple*
General Grant — *soft rose*
Giganteum — *rose*
*Henrietta Sargent — *rose pink*
Herbert Parsons — *lavender pink*
Ignatius Sargent — *rose*
J. H. Van Nes — *soft red*
Kettledrum — *bright crimson rose*
*Lady Armstrong — *medium rose*
Lee's Dark Purple — *purple*
*Meadowbrook — *bright rose, frilled*
*Mrs. Charles Sargent — *rose-red* (BEST)
Mrs. P. den Ouden — *crimson*
Parsons Gloriosum — *lilac*
Parsons Grandiflorum — *purplish-rose*
President Lincoln — *lilac*
Purple Splendour — *deepest purple*
*Purpureum Elegans — *purple*
*Purpureum grandiflorum — *purple*
*Roseum Elegans — *rose*
Roseum Superbum — *soft rose*

ANL 61

THE MAXIMUM HYBRIDS (Ponticum Series). The use of this specific epithet as a group-name would seem to be justified here, because only clones having well-marked characters of *R. maximum* might be included. Although it was used originally in basic crosses, this parent species has been neglected by breeders and almost no clones are presently on the market. The plants resemble *R. maximum* in foliage characters and lateness of bloom. Several of the Catawba Hybrids listed above obviously partake of Maximum ancestry. Other late-blooming hybrids, not yet introduced, are also in this category, and there may be some interesting developments in this class. For sub-zero regions, *R. maximum* possesses several qualities of potential importance, notably great hardiness and lateness of bloom, as well as freedom from a purplish tinge. The clone 'Mum,' which evidently shares *maximum* and *ponticum* "blood," is a fine, late, pure white flower with a beautiful golden blotch on its upper lobe.

THE DEXTER HYBRIDS (Fortunei Series). These mark the latest and most significant development among really new rhododendrons for temperatures descending to zero. While not nearly as hardy as the "ironclad" clones of Catawba Rhododendrons, they are, nevertheless, making a place for themselves wherever boxwood can be grown and possibly farther north, as new selections are made from time to time. Most of the Dexter hybrids have not yet received names as clones, and the best are under observation in test gardens. They were raised during the 1920s and 1930s by the late Mr. C. O. Dexter of Sandwich, Massachusetts, on Cape Cod. Using foundation stock of several superior clones within the Fortunei series, which showed evidences of *R. decorum* and *R. Fortunei* origin, crosses were made with many other rhododendrons, both hardy and otherwise. Thousands of seedlings were raised and some notable results have been secured. Trials indicate that many will grow in the climate of Boston and New York City. Some of the clones have very large flowers, up to nearly five inches across, and some are delightfully fragrant. Their trusses tend to be loose. The colors tend to be light, and the plants themselves are not so compact as might be desired for landscape purposes. But there is a freedom from purplish color tinges in many of them and several carry a yellowish or creamy color in their throats. Their height is about the same as that of the Catawba hybrids, but their leaves are larger and not so dark a green. Exceptional individuals are appearing, however, which have strong, bright colors, more compact trusses and good form. Such superior plants will some day be disseminated under clonal names, but this has not yet been done to any extent, so that no list can be made. Meanwhile, seedlings of selected, hand-pollinated parentage offer good material for the fancier to try. Although variable, some good and distinctive plants will usually appear among such seedlings, and this offers a means for amateur growers to secure plants of an otherwise rare strain.

OTHER CULTIVAR GROUPS OF ELEPIDOTE RHODODENDRONS. Besides the Dexter hybrids, there are numerous other groups within the Fortunei Series, most of which are of foreign origin and not adapted to the climate of the Northeastern United States. Among these are the Loderi rhododendrons, with huge blossoms up to seven inches across each flower. Another is the well-known clone, 'Pink Pearl.' Among these and others, grown abroad or on the West Coast, there are scores of cultivar races and hundreds of fine clones which, unfortunately, do not merit listing here because they are tender or merely half-hardy. Several additional species have been interbred with the Catawba and Fortunei rhododendrons and are leaving their mark as specialized groups. As yet this category is small, but it bids fair eventually to usher in some valuable new "breaks" among hardy rhododendrons. If any are appearing, their practical value at present is small, because they cannot be propagated in sufficient quantity for the trade for some years to come.

Rhododendron Griersonianum has been a valuable parent of new red hybrids abroad, but its progeny now in the trade is too tender for sub-zero conditions. It is being employed, however, by hybridists presently working toward new hardy material.

Rhododendron Williamsianum is producing valuable dwarf or semi-dwarf hybrids of compact habit, which are promising but not yet of demonstrated hardiness for the East. Certain species in the Neriiflorum Series may also contribute something to the hardy hybrids.

In most cases the problem of breeding new types is complicated by the fact that the winter-hardiness of species like *R. catawbiense* and *R. maximum* becomes impaired when crossed with anything else, since almost all the other worthwhile species, with a few exceptions, are less hardy. Unfortunately, those having the brightest colors and the most distinctive qualities are generally rather tender.

CAROLINA HYBRIDS (Carolinianum Series). These are very limited and are principally valuable only for extending the season of bloom within the Carolinianum Series. Up to now, these are about the only Lepidote rhododendrons whose hybrids are hardy enough to withstand zero conditions and which are available in the trade. *R. carolinianum* has been crossed with *R. mucronulatum* (a deciduous species of the Dauricum Series from Korea) to produce evergreen early-flowering hybrids with lilac-purple flowers and a somewhat looser habit than that of *R. carolinianum*. One of the clones of such a cross is called 'Conewago' (Gable), and has previously been disseminated as a seedling group under that cultivar name. A similar cross with *R. carolinianum* × *R. racemosum* is called 'Conestoga' (Gable). On the other end of the season, *R. carolinianum* × *R. minus* produces June-blooming F_1 hybrids, as yet unnamed (Bowers), with the expectation of filling the gaps in the season with clones from the second generation. In such manner, a series of successive bloom from hybrids in this category will doubtless be produced, beginning with the April-blooming 'Conewago' and ending in July with the latest *R. minus*. Within the same series *R. minus* has been crossed with *R. ferrugineum* to produce the clone 'Arbutifolium,' and with *R. hirsutum* to produce 'Myrtifolium,' both valuable, compact, hardy plants with small flowers. The color range of the Carolina hybrids is limited to pink and lilac, running from blush or shell-pink to lilac-purple. Hybrids with *R. ferrugineum* and *R. hirsutum* (the Alpine Rose species) are valuable for their compact habit which is useful in landscape planting, but their flowers are insignificant. The hybrids of *R. carolinianum* × *R. minus* seem to possess hybrid vigor in the first generation, growing taller and more vigorously than either parent. It should also be noted that there is a wide variation within the wild forms of *R. carolinianum*, and some unusual variants may be perpetuated as clones. None have been named, insofar as this writer is aware. Because Carolina hybrids are often confused, the following are listed here with their formulas appended:

CAROLINA HYBRIDS

Arbutifolium (*R. ferrugineum* × *minus*)
(Bowers 248, unnamed) (*R. carolinianum* × *minus*)
Codorus (*R. minus* × *racemosum*)
Conestoga (*R. carolinianum* × *racemosum*)
Conewago (*R. carolinianum* × *mucronulatum*)
Laetevirens (Syn. Wilsoni; *R. carolinianum* × *ferrugineum*)
Myrtifolium (*R. hirsutum* × *minus*)

"WINTER-HARDY AZALEAS AND RHODODENDRONS" -C.G. BOWERS 1954

AN 62

A P P E N D I X

Nursery Sources

7 numbered sheets

RHODODENDRON AND AZALEA
RETAIL NURSERY SOURCES

Retail nurseries, including those with mixed retail-wholesale operations, are given **letter codes.** Exclusively wholesale nurseries, designated by **number codes,** are listed separately.

If you are not a nurseryman, please do not order directly from wholesale firms. In the few instances where only wholesale sources have been given for plants, ask your local nurseryman or garden center to order them for you from the particular wholesale firm.

Adams Nursery, Box 525, Rte. 20, Westfield, Massachusetts 01085. (413) 562-3644, 736-0443. Retail and wholesale. General nursery stock. Catalog.

Avalon Mountain Gardens, Dana, North Carolina 28724. (704) 692-9898. Retail. Azaleas, heathers and perennials. List. Ships.

BA Bachman's, Inc., 6010 Lyndale Ave. South, Minneapolis, Minnesota 55423. (612) 827-3561. Retail and wholesale. Garden centers. General nursery stock. Retail catalog. Ships.

BL Warren Baldsiefen, Box 88, Bellvale, New York 10912. Retail. Rhododendrons. Mail-order catalog $1.50, refundable on first purchase. Nursery not open to visitors.

The Bovees, 1735 S. W. Coronado, Portland, Oregon 97219. (503) 244-9341. Retail only. Uncommon rhododendron species and hybrids, Exbury azaleas. Visitors by appointment. Mail-order catalog 25¢.

CB Carroll Gardens, E. Main St. Ext., Westminster, Maryland 21157. (301) 848-5422. Retail and wholesale. Dwarf evergreens, trees and shrubs, roses, perennials, herbs and ground covers. Mail-order catalog.

City of Glass, Melville Rd., Farmingdale, New York 11735. (516) 249-1700. Garden center. Local retail. General nursery stock.

CM Comerford's, Box 100, Marion, Oregon 97359. (503) 769-5278. Retail and wholesale. Rhododendrons, Exbury and other azaleas. Hard-to-find cultivars. Mail-order catalog.

CO John Connon Nurseries, Waterdown, Ontario, Canada. (416) 689-4631. Retail and wholesale. General nursery stock. Mail-order catalog.

DA Dauber's Nurseries, 1705 N. George St., Box 1746, York, Pennsylvania 17405. (717) 764-4553. Retail and wholesale. Uncommon trees and shrubs, often of landscape size. Hollies. Retail catalog.

DU Dutch Mountain Nursery, Augusta, Michigan 49012. (616) 731-4550. Retail. Trees and shrubs for wildlife plantings. Price list. Ships.

EA Eastern Shore Nurseries, Box 743, Rte. 331, Easton, Maryland 21601. (301) 822-1320. Retail and wholesale. General nursery stock, often of landscape size. Catalog. Ships.

FO Fiore Enterprises, Rte. 22, Prairie View, Illinois 60069. (312) 634-3400. Retail; also wholesale (as Charles Fiore Nurseries). Trees and shrubs, mainly of landscape size. Separate retail and wholesale catalogs. Ships.

GA Gardens of the Blue Ridge, Ashford (McDowell County), North Carolina 28603. (704) 756-4339. Nursery on Rte. 221 in Pineola. Retail, limited wholesale. Native trees and shrubs, wide selection of wildflowers. Mail-order catalog.

GD Gardenside Nurseries, Shelburne, Vermont 05482. (802) 985-2735. Retail. General nursery stock, landscape size. Price list. Does not ship.

GE Gilmore Plant & Bulb Co., Box 8, Rte. 421, Julian, North Carolina 27283. (919) 685-4451. Retail and wholesale. General nursery stock, evergreens, fruit trees. Catalog.

GI Girard Nurseries, R. D. #4, North Ridge East, Geneva, Ohio 44041. (216) 466-2881. Retail and wholesale. Dwarf and unusual evergreens, azaleas, uncommon trees. Pre-bonsai conifers. Conifer seeds. Mail-order catalog.

HA H. G. Hastings Co., Box 4088, Atlanta, Georgia 30302. (404) 522-9464. Three garden centers in Atlanta, one each in Birmingham and Charlotte. Retail and wholesale. Camellias, azaleas and other broad-leaf evergreens for the South. Roses, vegetable and flower seed. Fruit trees. Ornamental trees and shrubs. Mail-order catalog.

HE Heard Gardens, 5355 Merle Hay Rd. (Rte. No. 1, Box 134), Des Moines, Iowa 50323. (515) 276-4533. Retail and wholesale. Trees and shrubs of landscape size. Large selection of lilacs and crab apples. No catalog, but willing to ship particular items retail.

HY Stephen Hoyt's Sons Co., 529 Carter St., New Canaan, Connecticut 06840. (203) 966-1633. Retail and wholesale. As the Handbook goes to press, word has been received that this nursery is going out of business.

ID Indian Run Nursery, Allentown Rd., Robbinsville, New Jersey 08691. (609) 259-2600. Retail. Rhododendrons. Catalog. Does not ship. Closed Mondays.

IS Island Gardens, 701 Goodpasture Rd., Eugene, Oregon 97401. (503) 343-4711. Retail and wholesale. Exbury azaleas, rhododendrons. Mail-order catalog.

KI Rudolph Kluis Nursery, Box 116, Ryan Rd., Marlboro, New Jersey 07746. (201) 462-4694. Retail. Dwarf conifers, hard-to-find shrubs. Catalog 25¢. Does not ship. No deliveries. Visitors by appointment only. Closed on Sunday.

KR Krider Nurseries, Middlebury, Indiana 46540. (219) 825-2181. Retail and wholesale. Fruit trees, ornamental trees and shrubs. Mail-order catalog.

LA LaBars' Rhododendron Nursery, Box 111, Bryant St., Stroudsburg, Pennsylvania 18360. (717) 421-5880. Retail and wholesale. Landscape-size trees and shrubs available at the nursery. Mail-order catalog for rhododendrons and other ericaceous plants.

H. L. Larson, 3656 Bridgeport Way, Tacoma, Washington 98466. (206) 564-1488. Seeds of uncommon rhododendron species. No plants shipped. List.

A. M. Leonard & Son, Box 816, Piqua, Ohio 45356. (513) 773–2694. Gardening and pruning tools. Extensive catalog.

LI Light's Landscape Nurserymen, 9153 East D Ave., Richland, Michigan 49083. (616) 629-9761. Retail and limited wholesale. Unusually wide range of trees and shrubs. Large specimens at nursery. Delivery arranged to various points. Catalog. Ships.

LT Littlefield-Wyman Nurseries, 227 Centre Ave. (Rte. 123), Abington, Massachusetts 02351. (617) 878-1800 (from Boston area call 472-1195.) General nursery and garden center. Landscape-size trees and shrubs, evergreens. Delivery within 20 miles of Abington, beyond by special arrangement. Catalog.

MA May Nursery Co., Box 1312, 212 N. 3rd Ave., Yakima, Washington 98901. (509) 453-8219. Retail and wholesale. Fruit trees, berry plants and other nursery stock. Mail-order catalog.

MD Medford Nursery, Eayrestown - Red Lion Rd., R. D. 1, Medford, New Jersey 08055. (609) 267-8100. Retail and wholesale. General nursery stock, container grown plants and pot grown liners. Hollies. Ships retail.

MF Mayfair Nurseries, R. D. 2, Nichols, New York 13812 (nursery at Windham, Pa.). (717) 395-3154. Retail and wholesale. Dwarf conifers, heaths, heathers, dwarf rhododendrons and other rock garden plants. Mail-order catalog 25¢.

ML Mellinger's, Inc., 2310 W. S. Range Rd., North Lima, Ohio 44452. (216) 549-2027. Retail. Extensive variety of trees and shrubs in small sizes. Pre-bonsai. Tree seeds. Unusually large list of garden supplies, grafting tools, pruning shears, etc. Reference books. Mail-order catalog.

NU Nuccio's Nurseries, 3555 Chaney Trail, Altadena, California 91001. (213) 794-3383. Retail. Extensive camellia listing. Azaleas. Nursery closed Wednesdays. Mail-order catalog.

OL Oliver Nurseries, 1159 Bronson Rd., Fairfield, Connecticut 06430. (203) 259-5609. Retail. Dwarf conifers and rock garden evergreens. Dwarf rhododendrons. Uncommon trees and shrubs. Pre-bonsai plants. Mail-order catalog.

PF Panfield Nurseries, 322 Southdown Rd., Huntington, New York 11743. (516) 427-0112. Retail and wholesale. Extensive selection of trees and shrubs, many in specimen size. Heathers, conifers, broad-leaf evergreens. Separate retail and wholesale lists.

PK Park Gardens, 1435 Huntington Tpke., Trumbull, Connecticut 06611. (203) 374-3103. Retail and wholesale. Dwarf conifers and rock garden shrubs. List available. Ships.

Pellett Gardens, Atlantic, Iowa 50022. (712) 243-1917. Honey plants. Mail-order list.

PW Putney Nursery, Putney, Vermont 05346. (802) 387-5577. Retail. Wildflowers, ferns, perennials, ornamental trees and shrubs. Woody plants available only at the nursery. Mail-order catalog.

RA Rainier Mt. Alpine Gardens, 2007 S. 126th, Seattle, Washington 98168. (206) 242-4090. Retail (wholesale only at nursery). Dwarf conifers, uncommon rhododendrons, rock garden shrubs. Mail-order catalog.

RO Rosedale Nurseries, Saw Mill River Parkway, Hawthorne, New York 10532. (914) 769 - 1300; also, Rosedale - in - Dutchess, Rte. 44, Millbrook, New York 12545, (914) 677-3938. Retail. Large selection of general nursery stock. Shade trees of landscape size. Many plants not in catalog (50¢) are stocked. Does not ship.

Seven Dees Nursery, 6025 S. E. Powell, Portland, Oregon 97206. (503) 777-1412. Retail outlet of Sherwood Nursery Co. See #33 in wholesale list.

SE A. Shammarello & Son Nursery, 4590 Monticello Blvd., South Euclid, Ohio 44143. (216) 381-2510. Retail and wholesale. Rhododendrons and other broad-leaf evergreens. Mail-order catalog.

SH Sheridan Nurseries, 100 Sherway Dr., Etobicoke, Ontario, Canada. (416) 259-5095. Sales stations also at Greenhedges, 650 Montée de Liesse, Montreal 377, P. Q. (514-744-2451); Glenpark, 2827 Yonge St., Toronto 317, Ontario; others in Clarkson and Unionville, Ontario. Retail and wholesale. Wide selection of general nursery stock, perennials, roses. Deliveries in Toronto-Hamilton and Metropolitan Montreal. Catalog. Ships.

The Shop in the Sierras, Carl Stephens, Box 1, Midpines, California 95345. Western native trees and shrubs. Mail-order catalog 25¢.

AN 1

SS Star Roses (Conard-Pyle Co.), West Grove, Pennsylvania 19390. (215) 869-2426. Retail mail order catalog limited to roses. Garden centers in West Grove and Lancaster offer a wide range of shrubs and trees, besides roses. Wholesale catalog for roses and general stock.

TE Tennessee Nursery Co., Box 1299, Cleveland, Tennessee 37311. (615) 476-4142. Retail. General nursery stock. Mail-order catalog.

TH Thomasville Nurseries, Box 7, 1842 Smith Ave., Thomasville, Georgia 31792. (912) 226-5568. Retail. Camellias, roses, daylilies, liriopes. Mail-order catalog.

VI Martin Viette Nurseries, Rte. 25A (Northern Blvd.), East Norwich, New York 11732. (516) 922-5530. Retail and wholesale. Extensive nursery stock, including an unusually wide range of perennials and wildflowers. Catalog 50¢. Does not ship.

WB Waynesboro Nurseries, Box 987, Lyndhurst-Sherando Lake Rd., Waynesboro, Virginia 22980. (703) 942-4141. Retail and wholesale. General nursery stock, fruit trees, berry plants. Smaller trees and shrubs shipped, larger ones at the nursery. Mail-order catalog.

WF White Flower Farm, Rte. 63, Litchfield Connecticut 06759. (203) 567-9415. Retail. Perennials, bulbs, uncommon trees and shrubs. Mail-order catalog $1.50.

WG Wayside Gardens, 9470 Mentor Ave., Mentor, Ohio 44060. (216) 357-7538. Retail and wholesale. Wide range of trees, shrubs, vines, roses, perennials, bulbs. Mail-order catalog $2.00, refundable on first purchase.

WN Weston Nurseries, E. Main St., Hopkinton, Massachusetts 01748. (617) 435-3414 (from Greater Boston, Wellesley 235-34[illegible]. Retail and wholesale. General nursery stock, roses, perennials. Catalog free to New England, $1 elsewhere. Plants not shipped parcel post or express. Truck delivery on large orders may be arranged to various New England points.

PLANTS AND GARDENS
SUMMER-1970

SOURCES OF PLANT MATERIAL FROM WHOM WE HAVE HAD GOOD RESULTS

Midwest

Orlando S. Pride	523 Fifth Street	Butler, Pa.	16001
Warner Nursery	RD 4	Willoughby, Ohio	44094
Bosley Nurseries, Inc.	9579 Mentor Avenue	Mentor, Ohio	44060
Brouse Brothers Nursery	Potshop Road, R.D. 1	Norristown, Pa.	19401
A. Shammarello & Sons Nursery	4590 Monticello Blvd.	South Euclid, Ohio	44143

East Coast

Wells Nursery	474 West Swamp Road	Red Bank, N. J.	07701
Joseph B. Gable		Stewartstown, Pa.	
The Tingle Nursery Co.		Pittsville, Maryland	21850
Tumblebrook Rhodo Nursery (No shipping, but a tremendous	365 Simsbury Road variety of both species and hybrids)	Bloomfield, Conn.	06002
Gladsgay Gardens	6311 Three Chopt Road	Richmond, Va.	23226
LaBars' Rhododendron Nursery (Natural species)		Stroudsburg, Pa.	18360
DeWilde's Rhodo-Lake Nurseries	R. D. 1	Bridgeton, N. J.	08302
Ellerslie Nursery		Glenwood, Maryland	21738
Warren Baldsiefen	Box 88	Bellvale, New York	10912

West Coast

J. B. Whalley Nursery, Inc.	Rt. 2, Box 683	Troutdale, Oregon	97060
Island Gardens	701 Goodpasture Island Rd.	Eugene, Oregon	97401
Sherwood Nursery Co.	13020 N.E. Rose Parkway	Portland, Oregon	97230
Van Veen Nursery	4201 S.E. Franklin St.	Portland, Oregon	97206
Comerford's	P. O. Box 100	Marion, Oregon	97359
Greer Gardens (Species)	1280 Goodpasture Island Rd.	Eugene, Oregon	97401
Rainier Mt. Alpine Gardens	2007 South 126th St.	Seattle, Washington	98168

MARK M. HOLEMAN, LANDSCAPER
INDIANAPOLIS, IND. 46250 (1973) AN

THESE NAMED PLANTS ARE KEYED TO THE PRECEDING NURSERY SOURCES.

Rhododendron

Rhododendron carolinianum (5–4B)
CAROLINA RHODODENDRON
Compact shrub to 4–5 ft. with handsome short evergreen leaves. Light rosy-purple to pink flowers in early May. AH, BL, CB, DA, GA, GI, HY, ID, LA, LT, OL, VI, 1, 3, 6, 7, 19, 21, 35, 36, 38. *Selected Form:* 'Album.' BL, CB, GA, GD, HY, LA, 35, 38.

Rhododendron catawbiense (4)
CATAWBA RHODODENDRON
Shrub to 5 ft. or more. 5-in.-long evergreen leaves. Lilac-purple flowers in late May. GA, GD, LA, LT, PF, PW, WB, WN, 3, 6, 7, 19, 21. There are many named *catawbiense* hybrids with flowers ranging from red and purple to white. GI, HY, LI, RO, 1, 19, 21, 28, 38.

Rhododendron laetevirens (carolinianum × ferrugineum) (5–4B)
WILSON RHODODENDRON
Compact evergreen shrub to 4–5 ft., grown more for its pieris-like leaves than its small purplish-pink flowers in late May. Usually listed as *R. wilsonii*. CB, DA, HY, LT, MF, OL, PF, PK, 3, 6, 7, 21, 35, 36.

Rhododendron maximum (4–3B)
ROSE BAY RHODODENDRON
Tall evergreen shrub, almost tree-like to 20 ft. or more under good growing conditions. Flowers rose to purple-pink in mid-June, often obscured by the long leaves. Useful because of its exceptional hardiness. GA, HY, LA, LI, LT, PW, VI, WB, WN, 7, 19, 20, 21, 36, 38.

Rhododendron mucronulatum (4–3B)
KOREAN RHODODENDRON
Deciduous shrub to 5–6 ft. with rose-purple flowers in late March or early April. Repeat flowering in mild autumns. Buds sometimes suffer frost injury in parts of New England. Azalea-like in appearance, but a true rhododendron. DA, FO, GI, LA, LI, LT, MD, OL, RA, RO, SH, VI, WG, 1, 3, 9, 17, 21, 22, 35, 36, 38. Pink-flowering forms, including 'Cornell Pink,' available from BL, VI, WN, 3.

Rhododendron smirnowii (4)
SMIRNOW RHODODENDRON
Evergreen shrub to 6 ft. or more. Numerous white to rosy-red flowers in mid-May. Leaves woolly-white beneath. KI, OL, RA, WN.

Named hybrid rhododendrons available from many firms, including BL, CB, CM, GI, ID, LA, MF, OL, RA, SE, WN, 33, 37, 42. Some exceptionally good ones include 'Boule de Neige' (white flowers); 'Ben Moseley' (pink); 'Caroline' (fragrant pink flowers); 'Champagne' (cream); 'Christmas Cheer' (early white flowers on compact shrub); 'Cunningham's White' (white); 'Duke of York' (pale lilac); 'Janet Blair' (pink); 'Kettledrum' (magenta with yellow markings); 'Lady Armstrong' (magenta with deeper markings); 'Lee's Dark Purple'; 'Pink Twins' (semi-double flowers); 'Pioneer' (early rose-colored flowers); 'Roslyn' (late purple); 'Scintillation' (pink); 'Vulcan' (red); 'Westbury' (pink); 'Wheatley' (pink).

Azalea

Rhododendron arborescens (4)
SWEET AZALEA
Shrub to 6 ft. or more. Fragrant white flowers in early June. Azaleas are part of the large rhododendron genus, but for clarity most nurseries list them separately. BL, GA, HY, LA, LT, ML, OL, PW, RO, WN, 7, 21, 36.

Rhododendron calendulaceum (5–4B)
FLAME AZALEA
Shrub to 6–8 ft. with showy and long-lasting orange flowers in late May. Flowers sometimes yellow or scarlet. BL, DA, GA, GI, HY, ID, LA, LT, ML, OL, RO, WB, WN, 3, 7, 11, 21, 28, 38.

Rhododendron canadense (3–2B)
RHODORA
Azalea to 3 ft. with rose-purple flowers in late April. Best grown under cool, moist conditions. For the natural garden. GA, PW, SW, WN.

Exbury Azaleas (6–5)
Deciduous hybrids of complex parentage. Large flowers, ranging in color from orange to pink, red and creamy white. Eventual height 8 ft. or more. Best to purchase named forms. *Named forms* from: BL, CM, GI, IS, MD, OL, SS, WF, WG, WN, 17, 21, 23, 38.

Rhododendron gandavense (4)
GHENT AZALEA
Mixed hybrid, deciduous azaleas to 5 ft. or more. Flowers white to pink and orange. Some double-flowered. Many named forms. *Named forms* from: GI, IS, WN, 3, 22.

DWARF Rhododendron

Rhododendron 'Anna Baldsiefen' (5B?)
Compact shrub to 1½ ft. or more. Small evergreen leaves with many vivid light-rose flowers in late April or early May. BL, OL, WA.

Rhododendron 'Bow Bells' (williamsianum hybrid) (5)
Dense shrub to 3 ft. with light evergreen leaves. Large bell-shaped pink flowers in late April or early May. AL, RA, SP, WA, 23, 33, 37, 42.

Rhododendron ferrugineum (4B)
ALPEN-ROSE
Rounded shrub, eventually to 3–4 ft., that is prized mostly for its rather small evergreen leaves, rusty beneath. Rosy lilac flowers of modest size in June or July. Thrives in cool climates. RA, VI.

Rhododendron impeditum (4B)
Compact mound to 15–18 in. Scaly evergreen leaves ½-in. long, ¼-in. wide. Flowers purplish-blue to lavender-pink. April. BR, CB, CM, ID, MF, OL, RA, RO, SP, WA, 8, 17, 21, 23, 35, 37, 38, 42.

Rhododendron keiskei (dwarf form) (5)
Compact low evergreen shrub with small leaves. Lemon yellow flowers in mid-April. OL, RA.

Rhododendron P. J. M. Hybrids (carolinianum × dauricum) (5)
Tight mound to 4 ft. or more with small evergreen leaves which become purplish-bronze in winter. Lavender-pink flowers in early or mid-April. Slight variations in flower color and habit may be expected. BL, CM, ID, KI, MD, MF, OL, PF, RA, RO, SE, SH, WA, WN, 21, 35, 37, 38.

Rhododendron racemosum (5)
Dense shrub to 18 in. or more. Small evergreen leaves. Pinkish-white flowers in early May. BL, CM, ID, MF, ML, OL, PF, RA, RO, SP, WA, 1, 33, 36.

Rhododendron radicans (5B)
Prostrate evergreen shrublet to 6 in. high. Leaves bright green. Comparatively large purple flowers in May. AL, RA, WA.

Rhododendron 'Ramapo' (4)
Compact evergreen mound to 2 ft. or more. Small, light blue-green foliage. Pale violet flowers in late April or early May. BL, CO, ID, MF, OL, PF, PK, RA, SE, VI, WA, 37, 40, 42.

Rhododendron williamsianum (5)
Evergreen shrub to 2 ft. or more. Spreading. Fairly small coin-like leaves, tinged bronze. Large shell-pink flowers in April. AL, CM, RA, SP, WA, 33.

Rhododendron yakusimanum (4?)
Dome-shaped shrub to about 2½ ft. Evergreen leaves with conspicuous indumentum. Pink flower cluster, turning white. May. BL, CM, ID, RA, WA.

Glenn Dale Azaleas (based on R. obtusum) (6–5B)
Semi-evergreen shrubs to 4 ft. or more. Flowers range from red to pink and white and lavender. Many outstanding named forms. HA, OL, WB, 10, 23, 36, 42. The National Aboretum, Washington, D. C. 20250 has a mimeographed sheet of other sources for Glenn Dale Azaleas.

Rhododendron kosterianum (molle × japonicum) (5)
MOLLIS HYBRID AZALEAS
Deciduous shrubs to about 5 ft. Showy yellow to red flowers in mid- to late May. Many named forms. BA, CO, DA, HY, LI, LT, 22, 28.

Rhododendron molle (5)
CHINESE AZALEA
Shrub to 5–6 ft. with yellow flowers in mid-May. Many plants listed as such are probably hybrids with *R. japonicum*. EA, HE, IS, LA, LT, MA, OL, RO, VI, WN, 7, 11, 33, 35.

Rhododendron mucronatum (ledifolium album) (6–5B)
SNOW AZALEA
Excellent dense evergreen or nearly evergreen shrub to 4–5 ft. Fragrant white flowers in late April. Not always of reliable hardiness in New England. EA, GE, KI, 3, 21, 33, 42.

Rhododendron nudiflorum (4–3B)
PINXTERBLOOM AZALEA
Shrub to 5–6 ft. with light pink flowers in mid-May. Deciduous. GA, HY, LT, ML, PW, RO, 1, 7, 21.

Rhododendron obtusum japonicum hybrids (7–6) (CAREFUL!)
KURUME AZALEAS
Dense evergreen shrubs to 3 ft. Single or double flowers ranging in color from white to pink and red. Considerable variability in hardiness, some being hardy as far north as Long Island. Many named forms. DA, HA, NU, OL, TE, TH, WB, 10, 19, 20, 21, 36, 42.

Rhododendron obtusum kaempferi and hybrids (5–4B)
TORCH AZALEA
Dense deciduous shrub to 6 ft. or more. Flowers from red to pink and orange. Free-flowering. DA, LA, LI, LT, VI, WN, 3, 10, 21, 42, 44, 45.

Rhododendron roseum (4–3B)
ROSE-SHELL AZALEA
Deciduous, to 6 ft. or more. Fragrant bright pink flowers in mid-May. BL, LA, OL, RO, WN.

Rhododendron schlippenbachii (4)
ROYAL AZALEA
Ultimately a tall shrub (to 15 ft.). Fragrant large flowers, usually a good pink, in full bloom usually by early May. Good autumn color. BL, CM, DA, ID, LI, LT, ML, OL, RO, SH, VI, WG, WN, 1, 3, 22, 33, 36, 38.

Rhododendron vaseyi (4)
PINK-SHELL AZALEA
Shrub to 5–6 ft. with light rose flowers in early May. Usually good autumn color. BL, DA, EA, GA, HY, LA, LT, OL, PW, RO, VI, WN, 1, 3, 7, 21, 35, 38. *Selected Form:* 'White Find.' Flowers white. BL, LA, OL.

Flowers of *Rhododendron vaseyi* are usually light pink, but 'White Find,' a cultivated variety of this native azalea, is equally suited to the semi-naturalized garden.

Rhododendron viscosum (3)
SWAMP AZALEA
Shrub to 6–8 ft. with intensely fragrant, white or whitish-pink flowers in early summer. Good autumn color. Tolerant of wet sites. BL, GA, LA, OL, PW, RO, WN, 8, 21.

Rhododendron yedoense poukhanense (4)
KOREAN AZALEA
Dense shrub to 3–4 ft. with fragrant petunia-purple flowers in early May. Deciduous or semi-evergreen. Often listed as *Azalea poukhanensis*. AH, CM, HY, LA, LI, LT, ML, RO, WN, 1, 3, 9, 11, 15, 28, 33, 36, 38.

For other azaleas *see end of* rhododendron *listing; also* HA, IS, NU.

U. S. NATIONAL ARBORETUM
WASHINGTON, D. C. 20002

AZALEA AND RHODODENDRON SOURCES, RETAIL

Refer to KEY for types:

KEY:

1. Belgian Indian
2. Bobbink and Atkins
3. Chisholm, Merritt
4. Exbury and Knaphill
5. Gable
6. Ghent
7. Glenn Dale
8. Indian
9. Kaempferi
10. Kurume
11. Mollis
12. Pericat
13. Rutherford
14. Satsuki and Chugai
15. Shammarello
16. Sherwood
17. Southern Indica
18. Species, Native
19. Species, Introduced
20. Vuyk
21. Back Acre
22. Beltsville Dwarfs

Rhododendrons

23. Hybrids
24. Species

Blaauw, J. P. O. Box 573 Red Bank, New Jersey	4, 23, 24
Cherry Hill Nurseries Thurlows and Stranger, Inc. West Newbury, Massachusetts 01985	4, 9, 18, 23
S. D. Coleman Nurseries Fort Gaines, Georgia 31751	18
Columbia Nursery 1903 Martha's Road Alexandria, Virginia 22309	4, 5, 7, 9, 10, 11, 14, 18
Comerford's P. O. Box 100 Marion, Oregon 97359	4, 23, 24
DeWilde's Rhodo-Lake Nursery Route #1 Bridgeton, New Jersey 08302	5, 7, 9, 10, 20, 23, 24
Tom Dodd Nurseries, Inc. Semmes, Alabama 36575	5, 7, 10, 12
Fruitland Nurseries 2505 Washington Road Augusta, Georgia 30904	7, 8, 10, 12
Gardens of the Blue Ridge Ashford, McDowell County North Carolina 28603	18
Girard Nurseries Geneva, Ohio 04404	4, 5, 9, 10, 11, 23, 24
G. W. Harding Box 170-B Germantown, Maryland 20767	3, 5, 7, 12, 14
Mrs. Ruth Harrington 7208 Parkview Avenue Falls Church, Virginia 22042	5, 7, 9, 10, 14, 16, 18, 19, 20, 21, 23, 24
LaBar's Rhododendron Nursery Stroudsburg, Pennsylvania 18360	18, 23, 24
Littlefield-Wyman Nurseries, Inc. 227 Centre Avenue Abington, Massachusetts 02351	5, 9, 11, 18

MORE

Nuccdo's Nurseries 3555 Chaney Trail Altadena, California 91001	1, 10, 12, 13, 14, 17
Oliver Nurseries 1159 Bronson Road Fairfield, Connecticut 06430	4, 5, 6, 7, 10, 18, 23
Putney Nursery, Inc. Putney, Vermont 05346	18, 24
Reeds Azalea Nursery 3152 Holmes Run Road Falls Church, Virginia 22042	4, 7, 9, 10
Shammarello's 4590 Monticello Boulevard South Euclid, Ohio 44117	15, 23
Sherwood Nursery Company 13020 N. E. Rose Parkway Portland, Oregon 97230	5, 7, 11, 16, 18, 23, 24
The Three Laurels Madison County Marshall, North Carolina 28753	18, 24
Tingle Nursery Company Pittsville, Maryland 21850	4, 5, 6, 7, 9, 10, 11, 12, 14, 20, 21, 22
Tumblebrook Rhodo Nursery 365 Simsbury Road Bloomsfield, Connecticut 06002	4, 18, 19, 20, 23, 24
Van Veen Nursery 4201 S. E. Franklin Street Portland, Oregon 97206	23, 24
Watnong Nursery Morris Plains, New Jersey 07950	23
Wayside Gardens Mentor, Ohio 44060	4, 11, 19, 20
Westcroft Gardens 21803 West River Road Groose Ile, Michigan 48138	9, 11, 23
J. B. Whally, Inc. 22000 N. E. Halsey Fairview, Oregon 97060	5, 7, 10, 12

While it is impracticable to provide a complete list of dealers this partial list is furnished for your information with the understanding that no discrimination is intended and no guarantee of reliability implied.

National Arboretum
Washington, D. C. 20002
January, 1971

Nurseries Specializing in Rhododendrons

The following nurseries offer Rhododendrons as one of their specialties and in some cases grow nothing else. This list was compiled from advertisements in trade publications and from information furnished by leading amateur specialists in each region. Some fine professional growers will inevitably be overlooked in any such nation-wide roster assembled from many sources and their inadvertent omission has no significance whatever. Each of the nurserymen below responded to a questionnaire with the information noted opposite his name.

	Number of Sorts Usually Offered	*R – Retail W – Wholesale*	*LS – Larger Sizes for landscaping Sm – Small plants for lining out*	*Mail Orders Shipped?*	*Specialty*
New England					
NO Adams Nursery, Inc., Box 525, Westfield, Mass.	10	R & W	LS	No.	
Cherry Hill Nurseries, West Newbury, Mass.	15	R & W	LS	Yes.	
Little Tree Nurseries, Central St., Rowley, Mass.		R & W	Sm&LS	Yes.	
~~Rhode Island Nurseries, E. Main Rd., Newport, R.I.~~	~~18~~	~~W~~	~~Sm&LS~~		
Tumble Brook Rhododendron Nursery, 17 Simsbury Rd., West Hartford 7, Conn.	70		Sm	Yes.	Own-root liners.
~~Van Tol Nurseries, Box 115, Teaticket, Cape Cod, Mass.~~	~~18~~	~~R & W~~	~~Sm&LS~~	~~Yes.~~	
Weston Nurseries, Inc., Frankland St., Hopkinton, Mass.	40	R & W	LS	No.	
~~NO Wyman's Framingham Nurseries, Inc., Worcester Rd., Framingham, Mass.~~	~~20~~	~~W~~	~~LS~~	~~No.~~	
NO Wyman's Garden Centers, Inc., Worcester Rd., Framingham, Mass.	20	R	LS	No.	
Pennsylvania - New York - New Jersey					
NO Andorra Nurseries, Inc., Ridge Pike & Crescent Ave., Lafayette Hill, Pa.	18	R & W	LS	No.	
Angelica Nurseries, RFD #1, Mohnton, Pa.	100	R & W	Sm&LS	Yes.	Own-root liners.
~~Appalachian Nurseries, Box 87, Waynesboro, Pa.~~	~~18~~	~~W~~	~~Sm~~	~~Yes.~~	~~Own-root liners.~~
Backhaus Nursery, RFD #1, Renfrew, Pa.					
Warren Baldsiefen, Nurseryman, 89 Forest Place, Rochelle Park, N. J.	75	R & W	Sm&LS	Yes.	New introductions, own-root.
~~Bobbink Nurseries, 580 Paterson Ave., East Rutherford, N.J.~~	~~15~~	~~R & W~~	~~Sm&LS~~	~~Yes.~~	
Crystalaire Rhododendron Nursery, RFD #3, Slippery Rock, Pa.	25	R & W	Sm&LS	Yes.	Own-root liners.
~~Curtis Nurseries, Inc., Gallicoon, N.Y.~~	~~7~~	~~R & W~~	~~Sm&LS~~	~~Yes.~~	~~Native species.~~
NO Dauber's Nurseries, 1705 North George St., York, Pa.		R & W	Sm&LS	No.	
NO Davis Mt. Airy Nurseries, Stenton & Mt. Airy Ave., Philadelphia 50	12	R	Sm&LS	No.	
NO deWilde's Rhodo-Lake Nurseries, RFD #1, Bridgeton, N.J.	65	R & W	LS	No.	
~~NO East Northport Nurseries, 416 Clay Pitts Rd., East Northport, N.Y.~~	~~20~~	~~W~~	~~Sm&LS~~	~~No.~~	~~Own-root liners.~~
~~? William Effinger, Jr., Nurseryman, Sherwood Hill Rd., Brewster, N.Y.~~					
~~NO F. & F. Nurseries, 877 Milltown Road, Springfield, N.J.~~	~~20~~	~~W~~	~~Sm&LS~~	~~No.~~	
~~Fairview Evergreen Nurseries, Box E, Fairview, Pa.~~	~~20~~	~~W~~	~~LS~~	~~No.~~	
Joseph B. Gable, Stewartstown, Pa.	340	R & W	Sm&LS	Yes.	Species and hybrids.
NO Greendyke's Gardens, RFD #1, Hamburg Turnpike, Paterson, N.J.	10	R & W	LS	No.	
Green Meadow Nursery, Harriot Ave., Harrington Park, N.J.					
NO Heasley's Nurseries, 247 Freeport Road, Butler, Pa.	12	R & W	Sm&LS	No.	
P. D. Hileman, RFD #4, Kittanning, Pa.					
Hindla's Nursery, Bohemia, L.I., New York					Native species.
~~Hoosier Nursery, Deer Park Ave., RFD #4, Box 152, Huntington, L.I., New York~~					~~Own-root liners.~~
~~Kosies Nursery, Bridgeton, N.J.~~	~~25~~	~~W~~	~~Sm&LS~~	~~No.~~	~~Own-root plants.~~
LaBars' Rhododendron Nursery, Stroudsburg, Pa.	30	R & W	Sm&LS	Yes.	Native species.
~~Levick Nursery Co., RFD #2, Bridgeton, N.J.~~		~~W~~	~~LS~~	~~Yes.~~	
Marbarju Gardens, RFD #1, West Lake Road, Lake City, Pa.	12	R & W	Sm&LS	Yes.	
Musser Forests, Inc., Indiana, Pa.					
NO G. G. Nearing, Box 402, Ramsey, N.J.	50	R & W	LS	No.	Species and hybrids.
Parmentier's Roses, Grady St., Bayport, L.I., New York.					
~~Walter E. Peffer, Sandra Drive, Level Green, RFD #1, Trafford, Pa.~~	~~8~~	~~R & W~~	~~Sm&LS~~	~~Yes.~~	
NO Orlando S. Pride, Nurseryman, 523 5th St., Butler, Pa.	35	R & W	Sm&LS	No.	Own root plants.
? Rickert Nurseries, Morrisville, Pa.					
Rosedale Nurseries, Inc., Saw Mill River Parkway, Eastview, N.Y.		R	LS	Yes.	
William Schlupp, Branch Pike & Church Rd., Palmyra, N.J.					Own-root liners.
NO Ned W. Schrope, Hegins Valley Nursery, RFD, Hegins, Pa.	10	R	LS	No.	
? Sepers Nursery, N. Delsea Drive, Vineland, N.J.					
? Springfield Nursery, 492 Mountain Ave., Springfield, N.J.					
? Squirrel Hill Nursery, 2945 Beechwood Blvd., Pittsburgh, Pa.					
~~Warren E. Stokes, RFD #6, Butler, Pa.~~		~~W~~	~~LS~~	~~No.~~	
NO Thornton Nurseries, RFD #1, Conneaut Lake, Pa.	13	R & W	LS	No.	
? Valley Nursery, 2951 Shadagee Rd., Eden, N.Y.	95				
~~Verkade's Nurseries, Wayne, N.J.~~	~~20~~	~~W~~	~~Sm~~	~~No.~~	
John Vermeulen & Son, Inc., Woodfern Rd., Neshanic Station, N.J.	25	W	Sm	Yes.	
? James S. Wells Nursery, Box 141, Red Bank, N.J.					Own root plants.
~~Westbury Rose Co., Inc., Jericho Turnpike, Westbury, L.I., N.Y.~~	~~115~~	~~W~~	~~Sm&LS~~	~~No.~~	~~Own-root liners.~~
? Wilkinson Nursery, Ambrust, Pa.					
Windy Hill Nurseries, Dr. C. R. Shuster, Saltsburg, Pa.	15	R & W	Sm&LS	Yes.	
Central States and Ohio					
? Edward L. Abell, 421 Moccasin Ave., Buchanan, Mich.					
Azalea Gardens, R. A. West, 9204 S. 29th St., RFD #1, Scotts, Mich.	21	R & W	LS	Yes.	
NO C. Barbre, 302 Hillside Ave., Webster Groves 19, Missouri	10	R & W	LS	No.	
~~The Bosley Nursery, Mentor Ave., Mentor, Ohio~~	~~30~~	~~R & W~~	~~Sm&LS~~	~~Yes.~~	?
NO East Hill Nurseries, Chesterland, Ohio		R & W	Sm&LS	No.	
? Gerard K. Klyn, Inc., Mentor, Ohio					
Girard Bros. Nurseries, RFD #4, Geneva, Ohio	18	R & W	Sm&LS	Yes.	
? Green Ridge Nursery, Middle Ridge & Route 528, Madiso..					
? Gullo Nurseries, 2221 Mentor Ave., Painesville, Ohio					
Ted Leitzell, 1735 Wesley Ave., Evanston, Ill.	7	R & W	LS	Yes.	
? Lincoln Nurseries, RFD #2, Grand Rapids 4, Mich.					
Charles W. Mann, S. Maple St., Saugatuck, Mich.	13	R & W	LS	Yes.	
? Northern Azalea Gardens, 823 DeGroff St., Grand Ledge, Mich.					
~~Red Mill Nursery, Route #20, Perry, Ohio~~	~~30~~	~~W~~	~~LS~~	~~No.~~	
NO A. Shammarello & Son Nursery, 4590 Monticello Blvd., South Euclid 21, Ohio	40	R & W	Sm&LS	No.	Shammarello hybrids.
? E. Stroombeek Nursery, 278 Green Rd., North Madison, Ohio	35	R & W	Sm&LS		New introductions, own-root.
? Zophar P. Warner, Willoughby, Ohio					
NO Westcroft Gardens, Grosse Ile, Mich.	25	R & W	Sm&LS	No.	

MORE-

	Number of Sorts Usually Offered	R — Retail W — Wholesale	LS — Larger Sizes for landscaping Sm — Small plants for lining out	Mail Orders Shipped?	Specialty
Middle Atlantic and Southern States					
~~Aldridge Rhododendron Nurseries, Creedmore, N.C.~~	~~12~~	~~W~~	~~LS~~	~~No.~~	
NO Behnke Nurseries, Washington-Baltimore Blvd., Beltsville, Md.	60	R & W	LS	No.	
Cole Nurseries, Box 443 Bluefield, W. Va.		R & W	LS	Yes.	
~~Elterelle Nursery, Glenwood, Md.~~	~~20~~	~~W~~	~~Sm&LS~~	~~No.~~	
? Gladsgay Gardens, 6311 Three Chopt Rd., Richmond, Virginia		R & W	Sm&LS		
? Greenbrier Farms, Inc., RFD #3, Box 52-A, Norfolk 6, Va.		R & W	LS		
~~? Haddock Nursery, Box 603, Silver Spring, Md.~~	~~90~~	~~R~~			~~British hybrids.~~
NO Hagerstown Nursery Co., Inc., Virginia Ave. & Nursery Rd., Hagerstown, Md.	10	R		No.	
~~? Kingsville Nursery, Kingsville, Md.~~		~~R~~			
~~Laird's Nurseries, 8900 W. Broad St. Rd., Richmond, Va.~~	~~8~~	~~R & W~~	~~Sm&LS~~	~~Yes.~~	
NO Mountain View Nurseries, Box 1144, Greenville, South Carolina		R & W	LS	No.	
E. C. Robbins, Gardens of the Blue Ridge, Ashford, North Carolina		R & W	LS	Yes	Native species.
~~Rock Creek Nursery, M.G. Copien, Rockville, Md.~~	~~10~~	~~R & W~~	~~Sm&LS~~	~~Yes.~~	
NO Frank A. Smith & Co., 225 Phass Rd., N.E., Atlanta, Georgia		R & W	LS	No.	
Stone Mountain Gardens, 7400 Bowers Rd., Stone Mountain, Georgia	20	R	LS	Yes.	
Ten Oaks Nursery & Gardens, Inc., Clarksville, Md.	30	R & W	Sm&LS	Yes.	
Towson Nurseries, Inc., Paper Mill Rd., Cockeysville, Md.	40	R & W	Sm&LS	Yes.	
Vadma Nursery Agency, Inc., Hideaway Rd., Fairfax, Va.	20	R	LS	No.	
Watkins Nurseries, RFD #2, Midlothian, Va.	8	R & W	LS	Yes.	
~~Westminster Nurseries, Inc., Box 237, Westminster, Md.~~	~~15~~	~~W~~	~~LS~~	~~No.~~	
Wood-Howell Nurseries, Inc., 4473 Lee Highway, Bristol, Va.	11	R & W	LS	Yes.	
Washington - Oregon - California					
Bonnell Nurseries, 14455 Rainier Ave., Renton, Wash.	55	R & W	Sm&LS	Yes.	
Bonnybrook Nursery, 14237 100th Ave., N.E., Bothell, Wash.	45	R & W	Sm&LS	Yes.	Dwarf species.
The Bovees, S.W. Coronado St. & 16th Drive, Portland, Oregon	250	R & W	Sm&LS	Yes.	Species, own-root liners.
Carlton Nursery Co., Box 8, Forest Grove, Ore.	75	R & W	LS	Yes.	
J. Harold Clarke, Long Beach, Wash.	150	R & W	Sm&LS	Yes.	
Comerford's, Box 100, Marion, Oregon	180	R	LS	Yes.	Exbury hybrids.
Cranguyma Farms, Long Beach, Wash.	200	R & W	Sm&LS	Yes.	
F. A. Doerfler & Sons Nursery, 250 N. Lancaster Drive, Salem, Ore.	100	R & W	Sm&LS	Yes.	
John S. Druecker Nurseries, Box 511, Fort Bragg, California	150	R & W	LS	Yes.	
Esch & Seven Dees Nurseries, 6025 S.E. Powell St., Portland, Ore.	100	R & W	Sm&LS	Yes.	Own-root liners.
Flora Markeeta, 22925 102nd Place West, Edmonds, Wash.	300	R	Sm&LS	Yes.	
Floral Nursery, 17317 S.E. McLoughlin St., Portland 2, Ore.	200	R & W	Sm&LS	Yes.	
NO Gomes Nursery, 9875 MacArthur Blvd., Oakland 5, California	40	R	LS	No.	
Henny & Wennekamp, Inc., Box 212, Brooks, Ore.	200	R & W	Sm&LS	Yes.	
Rudolph Henny, Box 162, Brooks, Ore.	100	R & W	LS	Yes.	Species; own hybrids.
Hillside Nursery, 16809 S.E. Oatfield Rd., Milwaukie, Oregon			LS		
Homestead Nursery, Box 541, Redmond, Wash.	50	R	Sm&LS	Yes.	
Hopkins Nursery, RFD #2, Box 714, Bothell, Wash.	50	R	Sm&LS	Yes.	
Lackamas Gardens, RFD #1, Box 20, Camas, Wash.	150	R & W	Sm&LS	Yes.	
H. L. Larson, 3656 Bridgeport Way, Tacoma 66, Wash.	300	R & W	Sm&LS	Yes.	Species.
Lem Nursery, 19215 Aurora Ave., Seattle 33, Wash.	350	R & W	Sm&LS	Yes.	Species; own hybrids.
Irving B. Lincoln, 221 American Bank Bldg., Portland 5, Ore.	250	R & W	Sm&LS	Yes.	
Malmo Nurseries & Garden Store, 4700 25th Ave., N.E., Seattle, Wash.	150	R & W	LS	Yes.	
I. Owen Ostbo, 2016 Lake Washington Blvd., Bellevue, Wash.	150	R & W	LS		
Peppe's Nursery, 3616 S.E. Lake Road, Milwaukie 22, Ore.	50		Sm&LS	Yes.	
Portland Camellia Nursery, 10250 N.E. Pacific St., Portland 16, Ore.	75	R & W		Yes.	
Rainier Mt. Alpine Gardens, 2007 S. 126th St., Seattle 88, Wash.	150	R & W	Sm&LS	Yes.	Species.
Rhododendron Nursery, 4229 S.E. Division St., Portland 15, Ore.	75	R & W	Sm&LS	Yes.	
Richmond Nurseries, Richmond Beach, Wash.	65	R & W	Sm&LS	Yes.	
NO L.N. Roberson Co., 1539 E. 103rd St., Seattle 55, Wash.					
Seven Firs Nursery, RFD #1, Box 147, North Bend, Wash.	200	R & W	Sm&LS	Yes.	
? State Flower Nursery, RFD #2, Box 5, Bothell, Wash.	60	W	Sm&LS	Yes.	
Swiss Florales, 1920 N.E. 9th Ave., Portland 12, Ore.		R & W		Yes.	Species.
Taylor Nurseries, 4647 Union Bay Place, Seattle 5, Wash.	115	R	LS	Yes.	
Van Veen Nursery, 3127 S.E. 43rd Ave., Portland 6, Ore.	70	W	Sm	Yes.	
Vic Mix Campus Nursery, 5000 25th Ave., N.E., Seattle 2, Wash.		R	Sm&LS	No.	
West Oregon Nursery, 3550 N.W. Saltzman Rd., Portland 1, Ore.	75	W	Sm&LS	Yes.	
J. B. Whalley, RFD #2, Box 683, Troutdale, Ore.	100	W	Sm	Yes.	
NO Woodland Acres, 9945 S.W. Beaverton-Hillsdale Hwy., Beaverton, Ore.				No.	
Wright's Nursery, 16020 S.E. Harold Ave., Milwaukee, 22, Ore.	110	R & W	Sm&LS	Yes.	
Canada					
NO Ancaster Nurseries, Ancaster, Ontario	20	R	LS	No.	
Layritz Nurseries, Ltd., R.R. 3, Victoria, British Columbia	500	R	Sm&LS	Yes.	
Royston Nursery, Box 228 Royston, British Columbia	200	R		Yes.	Species.
Woodland Nurseries, Cooksville, Ontario					

England

Exbury Estate, Exbury, Southampton
Hillier & Sons, Winchester
Knap Hill Nursery Ltd. Woking, Surrey
G. Reuthe Ltd., Keston, Kent
Walter C. Slocock Ltd., Woking, Surrey
Frederick Street, West End, Woking, Surrey
The Sunningdale Nurseries, Windlesham, Surrey
John Waterer, Sons & Crisp Ltd. Bagshot, Surrey

Holland

Felix & Dijkhuis, Boskoop
F.J. Grootendorst & Sons, Boskoop
The Homestead Nurseries, Boskoop
M. Koster & Zonen, Boskoop
J. Blaauw & Co., Boskoop
Vuyk van Nes, Boskoop

Germany

Dietrich Hobbie, Linswege, Oldenburgh

"RHODODENDRONS OF THE WORLD"
-LEACH 1961

AN 7